THE CULTIVATOR.

TO IMPROVE THE SOIL AND THE MIND.

NEW SERIES. ALBANY, FEBRUARY, 1852. VOL. IX.—No. 2.

The Sub-division of Farms.

WE once had occasion to spend some hours at the residence of an acquaintance, who was a very successful raiser of fine fruits, and who had a profusion of garden luxuries from his well-treated grounds, but who, from some unaccountable cause had built a house that seemed to be,

"A mighty maze, and *all* without a plan."

For the rooms, instead of being arranged with a view to convenience, appeared to have been thrown together according to chance,—very much like a heap of railroad baggage after a collision. The common entrance was through the wood-house into the kitchen, which formed the sole means of access to the dining-room; and to pass from the latter to the parlor, it was necessary to walk through a portion of the open yard, or in common phrase "to go out doors." Now, this may seem eminently ludicrous to the lover of order, but certainly not more so than the arrangement of many a farm. How far, for example, would the reader of this article be compelled to travel, to find the farmer who is in the practice of passing through one field to reach another—who must cut a road through the grass of his meadow, to enter a field of ripened grain, or to demolish whole rows of unripe corn that he may draw to his barn the contents of the meadow.

We have many volumes of instructions and illustrations to show us how to plan and build our houses; but not one on laying-out farms. Is it because fences cost less than dwellings? This cannot be; for let any one who occupies a hundred acres, well fenced, but make the estimate, and he will find that he is compelled to keep up, even on this small domain, no less than four miles of partition walls between his fields, and the cost, with repairs, to be quite equal to that of a good farm-house. Is it because easy access to all parts of a farm is not essential to good husbandry? Can the farmer travel more easily a needless furlong, than the housewife can take five unnecessary steps from the kitchen to the dining-room? Is it easier for the farmer to draw a load of manure over a hill fifty feet high, or through a mudhole a foot and a-half deep, than his partner within doors to descend and return from that nuisance in domestic arrangement, a cellar kitchen? A moment's reflection must show that a well planned sub-division of a farm lies at the very foundation of convenience, system, and economy.

Let the reader carry out in figures the actual yearly cost of a single awkward defect. To drive a herd of cows a half mile between the barn-yard and pasture, may seem a slight task; but when this is repeated four times daily for eight months of the year, the aggregate distance to be traveled is greater than from Buffalo to the Atlantic; and not performed as the latter is with fire-car and the tempest's speed, but with the toilsome labor of the pedestrian or drover. A slight improvement in the plan might perhaps easily lessen this journey a hundred miles. When therefore the whole amount of other farm-travelling is taken into consideration, with loaded carts and without them, the subject of arrangement becomes one of no mean importance.

In furnishing specimen plans for laying-out farms, a difficulty will suggest itself, namely, the endless variation in their interior and exterior forms, in the position of hills and valleys, marsh and upland, in woods, springs, and water courses, and in intersections by the public road. This difficulty will however be greatly reduced, by adopting a few general plans with the leading principles, which may be modified according to circumstances

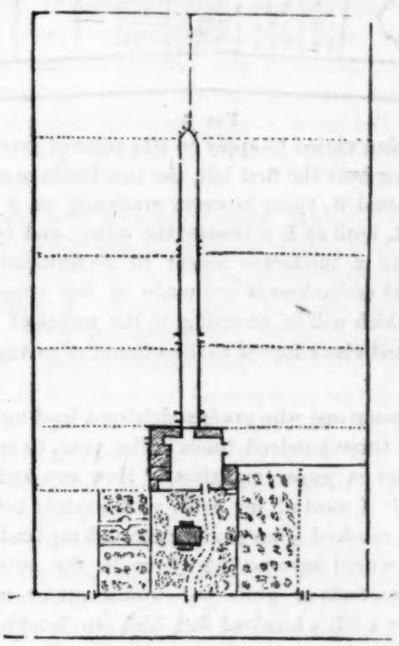


FIG. 1.

The most simple piece of ground, and the most easily laid out, is the nearly level parallelogram. There are many such in the country, and when the size is moderate, they usually lie with a narrow end to the public road. Such a one may be easily laid out into fields as shown in the annexed figure, (Fig. 1,) where every field is entered

from the common lane, and the operations in each kept entirely separate from all the rest. The boundary fences, and those forming the lane, are permanent; the others may be moveable, to vary the size of the fields, or to bring every portion of the farm into occasional cultivation. The smaller divisions, for garden, calf-pasture, hog-yard, &c., are placed near the buildings. This is perhaps the simplest mode of properly sub-dividing a farm, and with some slight variations will apply to a large portion of those of more moderate size. We furnish a single instance of a modification to suit a farm of uneven surface. Suppose for example, that at the field A, there is a high and broad hill, extending nearly across to the opposite boundary; and at B there is another hill, stretching as far in the other direction. A valley will be thus formed from C to D. Fig. 2 exhibits the form of

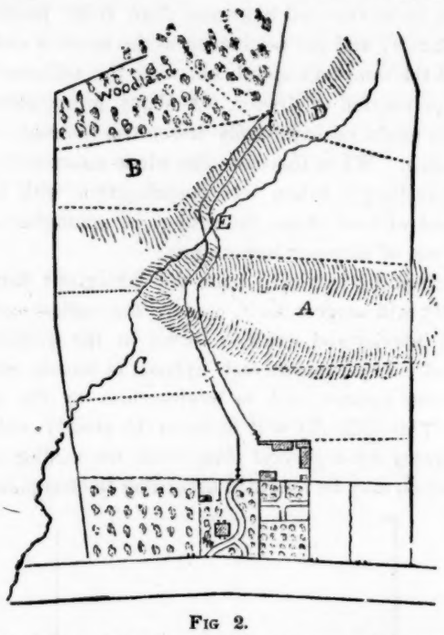


FIG 2.

the first plan varied to apply to this piece of ground. To avoid going over the first hill, the lane bends so as nearly to pass round it, rising however gradually as it extends backward, until at E it crosses the valley, and continues to rise by a moderate ascent to its termination. A bridge and embankment are made at the crossing, the cost of which will be according to the means of the proprietor, and also adapted to the amount of cartage across it.

Here, some one who prefers driving a load up hill and down hill three hundred times in the year, to spoiling a pretty plan *on paper*, exclaims, "How crooked! How distorted! I want all my fields with straight boundaries —and no crooked lanes running through my land." Such a farmer would have no deflections in the public roads to avoid mounds or gulfs, but would prefer mounting right over a hill a hundred feet high, to bending a hundred feet to the right or left, for a level. To such an one these remarks are not addressed, but to those only who prefer making all their flexures in a horizontal plane, rather than in a perpendicular one. We have indeed seen those who for years had drawn in all their farm crops, and returned all their manure, over a laborious ascent and down an inconvenient plunge, and we could not help wishing that they might at least make a short trial of a few easy curves with a fine level road, even though the beauty of the plantation, as seen from a balloon above, might be somewhat diminished.

Large farms usually border the public road for a greater breadth than smaller ones, and hence a different arrangement becomes necessary. The annexed plan, (Fig. 3) represents one of this sort, with the disposition of the farm-road and fields. The two extreme fields adjoining the public road, are entered as in the first plan from the latter.

This subject might be very easily extended to an indefinite length, but we close with a few general rules, which, if borne in mind, would be of essential use in planning the sub-divisions of every farm:—

1. The farm-road or lane should be as short as possible in connecting the fields with the buildings. If *much used*, the *form* of the fields if needed, should be made to conform to this requisite, and to its levelness.

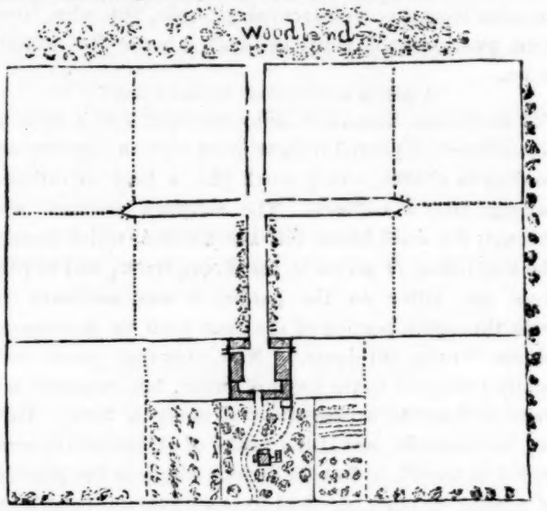


FIG. 3.

2. The barn and other farm buildings should be as near as practicable to the centre of the arable land, for economy and expedition in the cartage of manure and crops; at the same time that access to the public road should not be forgotten.

3. The number of fields should be accommodated to the system of rotation established on the farm, and should therefore be as nearly as may be of equal size.

4. The fields should be made nearly square, for economy of fencing material and to save occupancy of land by boundaries, less being needed for a square than for any other rectangular form.

5. When the land varies greatly in character, as in wetness or dryness, &c., such as is most similar should be brought within the same boundary, to be subjected to the same treatment in rotation. Dissimilar fields may however be often rendered alike by draining and subsoiling, when not otherwise easily subjected to a regular system.

6. Bringing streams of water alongside the fences, rendering facilities for irrigation, and also supplying water to each field, should not be overlooked.

7. Hills should be brought near the centre of fields, to enable the plow to pass around them to throw the earth downwards from the mould-board.

8. The area of each field should be determined, to enable the farmer to judge of the requisite quantity of seed and manure—and to measure the amount of crops, and time required for mowing, reaping, plowing, &c.

Prairie Farming---Breaking the Sod.

Many false impressions have gone forth among the eastern farmers, in regard to the expense of breaking a prairie sod; and to those who may contemplate removing to a prairie country, a few facts exemplifying the method of executing this work, and its average cost, when done by contract, might be found interesting. It is a very common practice throughout the entire western prairie country, to get the sod broken by contract, at a given price per acre, which ranges from $1.50 to $2.50 according to the character of the work, and the local influences governing the value of labor. The plow mostly used in breaking sod, turns a furrow two feet wide, and in some cases as high as thirty inches are turned, but the average may be rated at eighteen inches, requiring three yoke of oxen to do the work with ease. From two to three acres per day are plowed with an ox team, requiring one man to hold the plow, and another to drive. Tolerably good wages are made, at an average of two dollars per acre; and when all things are considered it cannot be said that it costs more to break up a prairie sod, than to plow an old meadow in one of the eastern or northern states. From two and a half to three inches, is the usual depth that the soil is broken, and the thinner it is plowed the better, so long as the vitality of the roots of the grass is destroyed. Advocates of deep plowing would not find their theory to work well, in breaking up prairie, from the fact that the thinner it is plowed the sooner will the roots of the grass undergo decomposition. When once broken, the case becomes altered. So soon as the first crop is harvested, deep plowing is no where productive of more favorable influence than on a rich, vegetable prairie soil, recently brought into cultivation.

In breaking prairie sod for corn, the work is sometimes done late in autumn, but more frequently it is performed in the spring, and the corn is planted immediately upon the inverted sod, in rows along the interstices of every alternate furrow. A small hole is cut in the sod with an old axe, or a grubbing hoe, in which the seed is deposited, and covered; and the crop from that time forward, receives no cultivation, or attention, till it is matured, ready for harvest. The average yield by this management, ranges from twenty to fifty bushels per acre; and about thirty-five bushels may be a fairly computed product, when the work is done in good season, and in a creditable manner. The extreme toughness of the unrotted sod, precludes the possibility of working the crop, and indeed nature herself wisely provides for the extermination of the wild grasses and plants, that so profusely spread over the prairie surface, requiring only on the part of the husbandman, a single plowing, by which the soil becomes divested of every species of herbage except such as may be planted by the hand of man.

Nothing can be so perfectly clean, as a virgin prairie soil, but owing to the prevailing manner of cultivation, the lapse of a very few years only, is required to overrun the whole surface of the land with a growth of weeds, such as can no where be found except in a prairie country. Those weeds being annuals, are easily extirpated; but when they once take possession of the soil, they impart a very unsightly appearance, ranging as they do, in most cases, from three to five feet in height; and the cost and difficulty in destroying them, are quite equal to the expense of bringing into cultivation a prairie sod. Indeed, on many accounts, an unbroken prairie is preferable to a farm that has been carelessly cropped six or eight years. This fact must become apparent to any one who will take the trouble to investigate the matter; and it is here mentioned as a warning to those who might be inclined to pay an exorbitant price for improved prairie farms, as they are sometimes called, when so overgrown with weeds as to make it almost impracticable for a person to pass over the fields without incurring the risk of being lost!

The best month in the year for breaking prairie is June, and when it is intended to sow the land with wheat, it is advisable to have the work executed at as early a period as this month, so that the sod may obtain a perfect rot before the period for seeding. In some cases the land is plowed a second time, and some prefer doing it crosswise of the furrow, and others lengthwise; but it is universally conceded that if the rot be perfect, so that a heavy harrow will completely pulverize it, the second plowing will not contribute in increasing the product of the wheat crop, and, therefore, only one plowing is usually given.

Along the borders of the wood-land, vast thickets of hazle brush abound, which extends itself yearly into the prairie. The land where the hazle grows is usually undulating, and the vegetable soil is much thinner than on the open prairie. It costs about $2.50 per acre to break up hazle brush land, and not less than four yoke of oxen are capable of doing the work. The average height of the bush is five feet, and with a strong plow and team, a furrow of two feet in width may be turned under with the greatest ease. The roots of the brush soon decay, and in a dry time the whole mass of brush and roots are burned, leaving the land in the best possible condition for a wheat crop.

In Illinois and Iowa, and Upper Missouri, the finest and most perfect plows are in use, and indeed some of the patterns could scarcely be improved, either in lessening the draft, or rendering the work more easy for the plowman. The strength of this conviction became increased by repeated practical trials, and after giving the matter a full and impartial investigation, we became convinced that a prairie sod had no equal as a test, to put to trial the skill of a scientific plowman; and that some of the most improved steel mould-board plows were so perfectly adapted to the character of the work, that any further attempt at improvement would be abortive. The best plows are suspended on two wheels, supported by an axle near the end of the beam. The wheels are twelve inches broad on the surface, the one following in the furrow guides the width of the furrow slice, and the one on the sod acts as a roller to break and smooth down the prairie grass. By the aid of a lever the wheels are hoisted up, so as to expedite the turning of the plow at the head lands, and the only thing the plowman has to do, is to set the plow at the turnings, as the wheels guide it quite as perfectly as could be done by the most experienced plowman. W. G. Edmundson. *Keokuk, Dec.* 1851.

Superficial Farming.

A prominent cause of small profits and poor success in many of our farmers, is the parsimonious application of capital, in manures, implements, physical force, and convenient buildings. In their eagerness to save at the tap, they waste freely at the bung. They remind us of the cultivator who candidly admitted his unprofitable system of farming; "but," said he, "I am not yet rich enough to be economical." We observe by a late number of the Mark-Lane Express, that the present *medium* estimate in England, of the capital required to carry on the business of a farm, is £8 (about 40 dollars) per acre, "and no prudent man *ought* to rent more than he has that amount, at least, of available capital to go on with; for a smaller possession, with ample means to manage it, will yield better returns than a large quantity of land inadequately stocked." Now, some of our best farms can be *bought* for about the same sum that the English farms are *rented*, and if the above remark is applied to purchasing, instead of renting, it will constitute excellent advice to Americans. This is a subject for a large volume; and we have only space now to say, that if the landowner has not suitable buildings, the value of the grain and fodder wasted in consequence, would soon pay for them; and the food and flesh wasted by exposed and shivering animals would soon pay for them a second time. The want of manure will prevent the value of crops from rising higher than the cost of cultivating them; and the want of heavy crops, to feed animals, will preclude keeping enough to make plenty of manure. In other words, a poor and badly cultivated farm will react, and only support a poor and badly-fed race of animals and men,—just in the same way that a fertile and thoroughly tilled piece of land will sustain animals enough to manure it and keep up its fertility, and men enough to give it thorough tillage.

Successful Culture of Melons.

Dr. HULL of Newburgh, N. Y., gives a statement of his method of culture in the Horticulturist. Holes two feet in diameter, and nearly two feet deep, dug in *trenched ground*, were filled, the lower half with equal parts clay loam and *fresh* manure, and the upper half with clay loam and *old* manure. Hills five inches high and four feet in diameter were then formed of equal parts of *poudretted muck*, (a barrel of Lodi poudrette to a cord of muck,) *sand*, and decomposed turf. The plants were started on inverted sods in a hot-bed. These hills were six feet apart from their centres, and the whole spaces between the centres were mulched with long litter. The bugs were completely expelled by watering the plants daily with a strong decoction of *quassia*—made by pouring four gallons of boiling water on four pounds of quassia in a barrel, and after 12 hours filling the barrel with water. The intolerable *squash or pumpkin bug* was thoroughly driven off by a decoction of double strength, containing a pound of *glue* to ten gallons, to make it adhere.

The product of a piece of ground 40 by 180 feet, was *sixteen hundred superb melons*. It ought to be added, that if the ground is not trenched, the holes should be much larger; and where the soil is light instead of clayey, *rotted* or *fine* manure only, well mixed with the earth, should be used, to prevent injury by drouth.

Importation of Hereford Cattle.

Mr. ERASTUS CORNING Jr., of Albany, has recently imported a pair of Hereford cattle, purchased by him when in England, last season, of Rev. J. R. SMYTHIES, of Lynch-Court, Herefordshire. The heifer is two years old, past, and the bull a year younger. The writer has had the pleasure of seeing these animals, and cannot refrain from expressiag his gratification that so great an acquisition as they, in themselves are, has been made to the farming stock of the country. The heifer is a most perfect model of beauty, combined with the points which indicate constitution, thrift, fine quality of flesh, and weight of carcase with lightness of offal. Although just off a long voyage, at an inclement season of the year, she is in high condition, and her flesh was, we are assured, acquired by grass. The bull suffered more from the voyage, and is at an age to appear to the least advantage; but he has points which show that he will make a strong and valuable beast. The animals do credit to the character of the breed, the skill of the breeder, and the judgment of the persons who selected them.

Mr. SMYTHIES is a veteran breeder. More than thirty years ago, the writer was interested in reading his spirited articles, which appeared in the London *Farmers' Journal*, in advocacy of his favorite Herefords. He has been a very successful competitor for the prizes of the Royal Agricultural Society, and of the Smithfield Club. The former association, in 1839, offered a prize of fifteen sovereigns for the cow "best calculated for dairy purposes"—the competition being open to all breeds in the kingdom. This prize was awarded to Mr. SMYTHIES for a Hereford—a second prize being awarded to a Short-horn. This was the only occasion on which that society has brought the different breeds into competitionwith each other—the class alluded to having been from that time abolished. The shows of the Smithfield Club, are for fat cattle; here all breeders compete together, and the success of the Herefords is too well known to require details here.

Mr. SMYTHIES has offered several challenges to the breeders of Short-horns and other cattle, to test the merits of the several breeds, by actual trial, on a fair scale; but they have not been accepted.

Mr. CORNING has exhibited a commendable enterprize in the introduction of these fine animals, which with others of the same breed, previously in his possession, will enable him to produce stock of high value. S. H.

A HIGH CHIMNEY.—A late paper states that one of the great chimneys built in Glasgow to carry off the smoke and create draft, belonging to the iron works of that city, lifts itself up to the enormous height of *four hundred and seventy feet*.

APPLES IN WESTERN NEW-YORK.—Moore's New-Yorker states that notwithstanding the great defect in both quantity and quality of apples, the past season, the county of Monroe furnished but little short of 200,000 bushels

Topping Corn—Improving Varieties, &c.

Mr. RUFFIN of Virginia, has offered a set of premiums for experiments in topping corn, in all Virginia and Maryland east of the Blue ridge. The object is to ascertain by experiment, whether cutting off the tops of corn, as is the usual practice in this region, is injurious or otherwise to the crop of corn. A glance at vegetable physiology in this relation, may be useful. The leaves of plants are of the same use to the plant that the lungs are to the animal,—so say systematic physiologists. I must be permitted to add, that they, the leaves, also supply the place of the animal *stomach*. The juices containing the nourishment of the plant are taken from the earth by the roots or radicles, and conveyed through the sap vessels to the leaves, where they are elaborated and prepared, just as the food in the stomach is, and formed into chyle by the functions of the leaves and the action of the atmosphere. Thus prepared, this chyliferous fluid then descends through another set of vessels to the various parts of the plant, to supply the material each may require for use. A portion of it is required for the increase of the body of the plant,—woody fibre, &c.; another portion for the formation of flowers at a later period; another portion is required for the formation, in the case of corn, of the cob, &c. At last, the grand effort and great object of the plant, is to form seed for future plants, that is the grain, and the great object of the farmer. In the formation of this, all the powers of the plant are taxed. The saccharine juice of the plant has to be converted into starch, and this is done by the exposure to the action of the atmosphere in the leaves. Here, also, the glutinous principle is formed, and other modifications necessary to the supply of the material of the grain, are effected in the juices of the plant. These juices now descend, and the apparatus attached to each grain of corn takes up and appropriates such portion of the descending fluid as it requires for the time. In this manner and way the grain is perfected, and as soon as it is perfected, the whole plant, except the grain, is found to be completely exhausted—drained, when all the operations have been perfect, most completely of all its juices, and becomes a mere mass of dry vegetable matter. Now, if all this be true, who can doubt that the suppression of a single leaf of the corn plant, before the grain is perfected, must be injurious to the perfection of the grain? If the taking off the tops is delayed till the grain is of full size, then the operation may not diminish the *measure* of the crop, but it will certainly diminish its weight and quality in proportion to the time, in relation to the perfection of the grain, at which it was performed, and I apprehend that the only question to be considered by the farmer in any such case, is the relative value to him of the grain and the fodder. If a farmer considers the value of the corn fodder greater than that of a small depreciation in the value of the grain, caused by the topping of his corn, then he will continue to top his crop to the extent of his want of fodder. But if he has not much need of the fodder, or if by saving it he diminish the quantity or weight of his grain to a greater extent than the fodder will pay for, then he will not top his corn. The experiments, if fairly tried, will unquestionably establish these truths. Let any one measure and weigh the shelled corn from an acre that has been topped to save the fodder; and also that from an acre that has not been topped at all, and he will find the yield in the former case, less by measure or weight, and perhaps both, than in the latter case; and the difference will be more in proportion to the time of topping. The corn plant, being an annual organism, has but the one object, and that is the perfection of seed for reproducing its species, and in the performance of this one great function, it most completely exhausts itself. Wheat, and all other annual cereals, are of the same nature. If we therefore, take from them a portion of this power, in the shape of leaves, and with the leaves a portion of the very juices out of which their seeds are to be formed, how can we expect those seeds to be as perfect as they would have been had the plants been allowed the use of their whole supply of organs and nutriment? Surely this argument need not be pursued further. It seems to me that it must carry conviction to every mind. But let us resort to analogy. You have a hog in the pen fattening for pork. Suppose you suppress an eighth or a tenth of his ordinary supply of food—will he thrive as fast, or will he thrive at all? Then why expect the corn to be as well filled and perfected, if you cut off an eighth or a tenth of its supply of food? For you must bear in mind that every leaf taken from a vegetable suppresses to the extent of its proportion to the leaves of the plant, the food of the growing plant and the growing seed. If we may be permitted to question nature on this subject, we might ask why she does not stop the growth of the top and leaves above the ears, as soon as the tassel has performed its functions, if these are of no further use?

We must not omit to make a distinction between annual plants, such as corn, and perennial plants, in considering this question. Perennials do not perfect themselves in one season. They grow and increase in size, even while bearing fruit. Now these may be very properly and profitably topped—pruned—and by doing it properly, the quantity and even quality of the fruit may be greatly improved. By pruning grapevines we cause much of the power of the plant that would have been exerted in making new wood, to be turned towards the formation of fruit. As we do not want the wood, and as we do want the fruit, this is a useful operation. In the case of perennials, the plant performs two operations, the extension of its size, and the production of fruit. The annual, after it is grown, has but one duty to perform, and that is the production of its fruit or seed, and always entirely exhausts itself in the effort.

But there is a species of topping corn that I have practiced with very curious results. It occurred in my experiments in improving corn by cross impregnation. To accomplish my object I was obliged to suppress the *tassel only*, not touching a single leaf. On all these plants I found the ears were larger and the grain longer and heavier, than those in which the tassels were allowed to grow and perform their functions. Now here we can readily see the reason of the result. The tassel is a large organ, requiring a considerable portion of the nutritive power of the plant to produce and support it; if we prevent its formation and growth, we of course save to the

other parts of the plant all the food that would have been required for the tassel. The consequence was as above related, a considerable increase of the size and weight of the ears and grain. I must explain that the pollen was supplied by other plants surrounding the one operated on, but at no expense to them because the pollen that fell upon the experimental plants would have been lost to its parent plants at all events. Persons disposed to try this experiment may do so safely without risk of loss. The tassel of each alternate plant in a field may be cut out just as it makes its appearance, and the *silk* or pistils of the plants will be supplied by the tassels of the neighboring plants. In this way new varieties of corn may be produced at pleasure and with little trouble. Indeed the wonder is that while we are ranging the wide world over in search of new grains, fruits, and vegetables, so little is done to produce new ones and improve old ones at home. In the case of corn, I affirm that every improvement that can be desired, can be effected in it. It can be made late or early, large cob or small cob, large or small grain, hard and flinty or soft and flowery, white or yellow, by the simple method of cross breeding. It is infinitely more easy and certain than the processes of improving animals, and in my opinion infinitely more important to the public and to private interests. Suppose a farmer desires a kind of corn that ripens earlier than the kind he cultivates. Let him get some early kind, and plant it alternately with his late kind, allowing at the time of planting for the difference of time each one ripens. If his late kind ripens on the 15th September, and the early kind ripens on the 15th of August, then he must plant the late kind just one month before he plants the early kind. They will then come into flower,—that is tassel and silk, together. When the tassels begin to show themselves, let him carefully cut out all the tassels from the early kind. This is all he has to do. When the corn is ripe, select the earliest and best ears from the early kind, plant the grain by itself the next year. He will find the produce will be a mixture of the two kinds planted the first year, as to color, but they will all be early. At harvest select the grains desired, and the third year will produce the crop desired. In this way any change or improvement in corn can be accomplished.

Growth of the United States.

Hon. LEWIS CASS, in his late address before the Michigan State Ag. Society, presented the following striking illustration of the rapid growth of this country from its first settlement:

"I have said upon another occasion, but the circumstance is so striking and characteristic that I must repeat it here, that I have often conversed with a venerable relative who was a cotemporary of Peregrine White, the first child born to the pilgrims after their arrival on this continent. What an almost appalling idea does this simple fact present of the progress and prospects of this vast Republican empire! But one life passed away between the first and the latest born of one of its great communities—between its infancy and its maturity—between its weakness, almost without hope, and its power, almost without limits—between its granary holding a few kernels of corn, and all its vast 'store-houses' whose contents, like those of Pharaoh's, we may *leave numbering, for they are without number.*"

What Foreigners Think of Us.—Continued.

ANALYTICAL LABORATORY, YALE COLLEGE,
New-Haven, Conn., Jan. 3, 1851.

MESSRS. EDITORS—In reference to the concluding remark of my last letter, I would say first, that few of those who write or speak upon agricultural subjects, have given enough heed to comparison in the starting point of a district, when treating of its present condition. We may pass from a rich highly cultivated district, into a poor barren region, where appear on all sides signs of imperfect and ill managed agriculture, and our first impulse is to condemn the one and praise the other; but after all it may really be the case, that the latter has for the last ten or twenty years made far greater progress than the former. Its farmers have had to struggle with the disadvantages of a poor worn out soil, bad climate, and consequent general depression. Probably too the facilities for communication and transportation have been limited, while in the former case the reverse of all these conditions, has long ago laid the foundation of wealth and lasting prosperity. We are of course disposed to flatter and praise the agriculturists of the one district, while we condemn those of the other, but in this we often do a most serious injustice.

I remember a striking case of this kind. I once spent some days in one of the Western Hebrides, with an eminent scientific agriculturist, who had been invited to visit the island with the expectation that his teachings and writings would be of much benefit. Agriculture in this island at the commencement of the present century was, as in all or nearly all of the Scottish Highlands and Islands, at the lowest ebb; the earth scarcely produced enough for the wants of mere existence, and famine frequently followed even a partial failure of the scanty crops. The implements were all of the rudest and most primitive character, the few roads nearly impassible, and communication with the main land uncertain and unfrequent. At the time of our visit, the roads were sufficiently numerous and in good condition, the tools and farm buildings had become respectable, some good stock had been introduced, and the surplus produce of the island was sufficient to support a line of steamers from two different points, besides numerous sailing vessels. The original Gaelic language was fast yielding to the English, prejudice and ignorance had been overcome in a wonderful degree.

This was a great change to have taken place in a single life time; it was still incomplete; but those who knew all of the circumstances felt proud to call attention to their condition; they had really good ground for their pride, and naturally expected warm commendation. How were they disappointed then, when their visitor in one or two public lectures, compared them deliberately with the Scottish Lowlands and other highly farmed districts, finding fault with all that differed from such standards, noticing in severe terms the lack of care in the preservation of manures, in the extirpation of weeds, &c. &c., which he had noticed. His remarks were doubtless just, but I was even then led to doubt their propriety, by the ill effects they produced.

Within twenty years the Lowlands of Scotland had merely advanced from one state of good farming to

another; they had added to previous knowledge, and cultivated a previously improved soil, until they stood acknowledged at the head of well farmed districts. Within the same twenty years, the Island on which we were, had emerged from a state of almost absolute barbarism, with respect to its agriculture; with no previous knowledge, with no degrees of excellence to stimulate, and scanty facilities of intercourse, the enterprise of a few individuals had disseminated right principles through the Island, until it had assumed a highly respectable and flourishing condition. Had not the advance in this latter case been many times more decided and creditable than in the former? These people felt that they had done a great work, and were proud of it, and even a little too much pride might well have been excused in such an instance; it surely was not wise to disenchant them rudely, to compare them at once with the best farmers of the world, and to make them feel an overwhelming sense of deficiency.

This was a case for warm and emphatic praise; every step of progress that had been made should have been commended and noted; encouragement should have breathed in every word. Such a course need not have made them self-satisfied and sluggish; on the contrary, a hint now and then thrown in among judicious praises, would have stimulated to farther exertion, and the people who went away discontented and discouraged, would have gone on to new improvements and new exertions.

Now, I think that the same course described above has too often been pursued in this country, and with the like ill effect. Foreigners, looking not at our comparative advance, or our circumstances of situation and climate, compare us absolutely with some high standard, and finding of course, a difference, exhaust their wit, irony, and sarcasm upon us. I am not to be understood as advocating or wishing unqualified praise from our visitors, for that is nauseating, because undeserved, but I do desire to see a man who can do us justice, who can praise as he ought, the great advances which many of our farmers have made, and appreciate the desire for improvement which prevails in so many districts. Hints of defect in certain points, and suggestions for improvement in others, would come properly from such a man, and would be thankfully received. Human nature is alike in all lands, and the majority of men will not accept even of good advice, when given in a censorious or dictatorial spirit. If a man obstinately refuses to see the good that really exists, and dwells constantly on the other side of the picture, we are insensibly disposed to combat all his criticisms, and to distrust the soundness of his opinions.

The farmers of the United States, as a class, are undoubtedly subject to some serious charges on the score of imperfect agriculture; there are whole counties, and even states, where a proper system of cultivation is almost unknown; and there are many broad and fertile districts undergoing a species of management which tends directly to exhaustion; these are melancholy statements, but true, and yet I contend that a noble minded man, free from all little prejudices, would find much to praise even among the most slovenly of our farmers, in the new states. The broad acres now smiling with golden crops, were but a few years ago, an unbroken wilderness; all the marks of civilization around, scattered and fragmentary as they may be, are the result of the pioneer's toil, and the cultivation, rude though it is, may perhaps, be better for a new country than the efforts of the most finished agriculturist of Europe.

We have existed as an independent nation not yet three-fourths of a century, and with all the commercial resources of an immense continent to develop, with the attractions of foreign trade, with unparalleled internal improvements to occupy the attention and draw forth the energies of our people, with our way to fight through untouched forests, is it to be wondered at that our agriculture has not yet attained a finished and perfect character?

I maintain that quite as much has been done as could possibly have been expected—more than any other people has ever accomplished in the same length of time, upon a similar territorial expanse. Our crops, even now, are sufficient to supply the wants of many foreign countries, and the production is only limited by the demand. Let England experience a famine, and she will find that we can fill all the ships that she can send.

Our implements are in some classes confessedly superior to those of any other nation; such axes, forks, shovels and scythes as ours, are no where to be seen; our plows have lately taken a high stand at the World's Fair, and our reapers will soon cut the crops of all Great Britain. In stock, too, we now have not only representatives from all the best blood of Europe, but whole flocks and families of high pedigree, may be found in most sections of the Union.

Agricultural papers are more numerous, and more liberally patronised than in any other country; there is probably no foreign paper devoted purely to agriculture, that has half the circulation of The Cultivator. The whole number of our papers that labor exclusively in this field, is, I suppose, considerably greater than all the rest that can be mustered in Europe, or, indeed, in the world. Agricultural societies also are numerous, active, and powerful; the New-York State Society attracts a far greater multitude to its shows than I have ever seen in England, and the shows themselves would do credit to any people.

These facts prove that we are awake to our situation, that we are aware of imperfections, and are striving to remedy them. They ought, coupled with the general and remarkable intelligence of our farming population, to excite in the breast of a generous, liberal traveller, some sentiments of admiration and respect. If a man is not capable of this, he should be somewhat restrained by salutary fear of his own reputation as an observer, for it must be obvious to any unprejudiced mind, that in a community where such papers as The Cultivator, Am. Agriculturist, Genesee Farmer, Prairie Farmer, &c., flourish, where such a Society as that of New-York State has grown up, that there is a steady and rapid improvement in progress.

But if injustice is done us, we must endeavor to show it to be injustice, not by declaiming against the inconsistency and obstinate prejudice of foreigners, but by redoubling our efforts to excel. Words will never prove us to be good farmers—actions and results may. Let us, then, swallow our resentment at misrepresentation, and

take a nobler revenge by placing our agricultural practice at the head of all.

I had intended last month to devote a small part of my letter to some remarks on the communication by Mr. BARTLETT, in your November No. I am aware that ashes, fresh and unleached, liberate ammonia from guano, and other highly nitrogenous manures. My intention, however, in recommending such a mixture was, that it should be made immediately before sowing; the escape of ammonia in that case would be trifling. I am obliged to Mr. BARTLETT for calling my attention to this point, as the absence of any direction on the subject might lead the farmer to make the mixture a day or two before the time of sowing, if he happened to have leisure time. It would, therefore, have been better to insert a caution, or perhaps better still, to have said *leached ashes*, as these could produce no evil effect.

As to the action of gypsum in absorbing ammonia, it is rather slow and gradual; when large quantities of ammonia are liberated at once, as in Mr. Bartlett's experience with the urine and fresh ashes, gypsum could not be expected to arrest more than a small part of what escaped. Far more powerful means of preserving ammonia, would have failed of entire success in such a case. The whole subject of the influence of gypsum in agriculture, needs a careful and extended examination; all such facts as those stated by Mr. Bartlett are valuable. Yours truly, JOHN P. NORTON.

"February is a hard Month for Stock."

This has almost passed into an adage. It is usually the coldest month of the year, and as cattle are frequently fed in such a way that they grow poor from the time they come to the barn till they go out to grass again, their ability to stand the weather is less at this time than earlier in the season. Good farmers, however, understand this and see that their animals are supplied with food according to their needs. They must eat in proportion to the cold, or the fat and flesh will be wasted away in the production of the warmth necessary to sustain life. Hence they should be exposed as little as practicable to severe weather. They can usually be fed to the best advantage in the barn, or in comfortable sheds attached to the yard. They should have plenty of water, (that which is several degrees above freezing is best,) without being obliged to encounter chilling blasts to get it. Cows which calve early, should receive better food as the time of parturition approaches. A mixture of meal and bran, in equal quantities, two to four quarts a day to each cow, will be found to more than pay all costs in the increased return of butter and cheese, besides greatly strengthening the cow, and improving the condition of her calf. The same may be said of ewes and lambs. If sheep fall off in condition, the wool is injured. Much loss is sustained from this cause. The wool produced while the animal is growing poor, is weak, and gives an uneven staple.

LARGE PEAR.—A. J. Downing says that a specimen of the Dutchess of Angouleme, weighing *twenty-five* ounces, and measuring 15 inches round the longest way, was raised by S. LEEDS of Boston, last year.

Hardiness of Grafted Apple Trees.

A correspondent, (W. M'C.) who has lately set out a large orchard of trees, and intends setting out more, wishes to know the correctness of the common objections, that apple-trees, grafted in or near the root, are liable to uneven growth, distorted trunks, unsoundness at the point of union, and liability to decay at the heart, and poor crops.

We have never seen anything to warrant the above objections to setting out grafted trees. There are some varieties of the apple, it is true, which usually grow more crooked than most natural seedlings,—such for example, as the Rhode-Island Greening, Roxbury Russet, and Fall Pippin. Handsomer trees of these sorts might be obtained by selecting very straight stocks, and grafting them at standard height. It might also prove advantageous to treat in the same way some of the slower-growing kinds, as Lowell, Red Canada, Early Joe, Dyer, Hawley, Ladies' Sweet, &c. Beyond these, there are probably no advantages in grafting high. This conclusion is founded on continued observation of thousands of old and bearing apple trees, from twenty to fifty years of age, grafted at all heights from beneath the surface to seven feet above. We have never observed any bad result from the graft out-growing the stock, or vice versa, so far as this remark will apply to the apple or apple stocks; nor does the union of stock and graft ever appear to be imperfect or unsound, nor the tree to become liable to decay at that point more than elsewhere. We have no doubt that disease and death, resulting from bad cultivation, or from an entire absence of all cultivation, good or bad, has been attributed to grafting, so prone are many to avoid self-blame. In ungenial climates, or on unfavorable soils, possibly different results might be developed, which would never become visible in regions best adapted to the growth of the apple. In Wisconsin and in the colder parts of the western country, where trees grow rapidly in summer, and are then subjected to frosts of some twenty degrees below zero, it has been found advantageous to bud or graft the more tender varieties of the apple at the height of a foot or more from the ground.

Insects on Apple and Cherry Grafts.

EDS. CULTIVATOR—For the past two years I have been much troubled with an insect destroying my apple and cherry grafts, particularly the latter, by gnawing out the buds previous to their starting. If you can give any information respecting the insect, its habits, and mode of prevention or destruction, in The Cultivator, you will confer a particular favor. JOHN WATERS. *New Milford, Dec.* 18, 1851.

We have never met with nor known the insect mentioned above, nor suffered a similar loss to the one described, from any cause. We are unable to say anything of its habits, nor of the mode of avoiding its depredations; for our correspondent having given us no description, we find ourselves in a dilemma quite similar to that of the Chaldean magicians, (although we have no thought of claiming the wisdom they professed,) who deemed it sadly puzzling to be required to give both dream and interpretation. The only insect we know, with similar

habits of eating, is the steel-blue flea-beetle, (*Haltica chalybea,*) which destroys the buds of the grape early in spring, by eating out the central parts. The turnep-fly is a near relative of this little grape-devourer.

If our correspondent will send specimens of the insect, possibly we may ascertain something further about it. Insects may be sent by mail, by enclosing them in small paste-board or tin boxes; or if they are minute, in the barrel of a large quill. A small brass thimble wrapped with paper, is a convenient case for sending them by mail. Without some protection of this sort, they will scarcely fail to be crushed.

Page's Portable Saw Mill.

Having received several inquiries in relation to this machine, we forwarded them to our correspondent at Baltimore, Dr. G. B. Smith, who has favored us with the following reply:

In answer to the inquiries of "G." and "S. D.," I have to say that the Portable Saw Mill, noticed by me in my report of our State Cattle Show, is manufactured by Mr. J. K. Sanborn, at Sandy Hill, New-York, for the state of New-York, and I believe most of the northern states. He can answer the question as to the prices of the various sized mills. I must remark that all my knowledge of the machines is derived from seeing them work. In answer to the questions in their order, I have to say,

1st. I have seen the portable saw mill worked with four horses, with eight horses, and with portable steam engines. Of course, eight horses, or their equivalent in steam power, will work to most advantage on large logs, or logs more than 12 inches diameter.

2d. The common horse power of a threshing machine, if of four or more horse draft, can be applied to it with effect according to the power, as the power is applied to the machine by means of a band and pulley.

3d. Eight horses will work the mill with ease, cutting about three thousand feet of plank per day. A twelve horse power steam engine will make it cut 6000 to 8000 feet per day.

4th. I cannot estimate the expense of moving the machine a few miles and resetting it—so much depending upon local contingencies. I should suppose, however, that it would be a mere trifle, as the whole apparatus is as portable as a threshing machine, except being more heavy. It can be removed in a common wagon drawn by four or six horses, from one part of the woods to another, or wherever else its services may be required, and put in operation again without delay or difficulty. One person with one of these mills has cut with four horses from May to October, five months, two hundred thousand feet of lumber, and the machine had not got materially out of order.

5th. Weight of a first class saw mill about 7000 lbs., second class 5000 lbs., third class 4000 lbs. Weight of horse power for 4, 6, 8, or 10 horses about 3550 lbs. It is portable over any road or surface where so heavy a load can be carried.

Mr. Sanborn will of course answer the question as to prices of the various sizes. For the largest size, with steam engine and everything complete, the price will be about $2000. For the saw mill alone, 12 feet carriage, 24 feet ways, about $700. For second class saw mill and engine, 12 horse power, complete, about $1900. Saw mill alone about $500. Third class saw mill and engine, 10 horse power, about $1500. Saw mill alone about $300. To each of the sizes, there are various fixings necessary which cost one to two hundred dollars.

But as to the prices I do not know that Mr. Sanborn charges so high, nor that he does not ask even more. I am obliged to guess at most of them.

In conclusion, I do believe that in a timber country where lumber is wanted either for common purposes or plank roads, there is nothing equal to this portable saw mill. I have stood looking at it at work for hours and hours in admiration of its performance. I have seen the saw cut through a log, 12 feet long and more than a foot diameter, hard seasoned oak, in one minute, and in 12 minutes reduce a log of that kind to inch and a half planks.

But I have said enough. Those who want further information can readily obtain it from Mr. Sanborn, at Sandy Hill. Respect fully, Gideon B. Smith.

Washing, Drying, and Ironing Clothes.

So very great is our difficulty of procuring female "help" in northern Indiana, and I may say the northwest generally, that washing day is rendered frequently not only one of imaginary misery, but one of real, and almost unendurable labor to the female part of our families.

Our farms are generally large, compelling us to keep a number of hands, and though we are willing to submit to almost any tyranny from our "help," yet we will frequently find our wives in bad health, compelled upon a moment's warming, to resume the entire household work. There is no escape that we can hope for from this state of things,—so that I desire to elicit through your Journal, such modes as our ingenious eastern brethren may have found practical in transferring the labor of washing day from the hands of our females, and placing the burthen upon ourselves and sons, or even upon our horses, if it has been found practicable to do so. Many of us saw our wood with circular saws, and hence the horse-power is generally at hand. It appears to me that Yankee ingenuity certainly has devised a mode to wash by horse-power, and I remember to have seen in your paper a plan for drying clothes, by placing them in a quickly revolving box, but the details not having been given, I could not even try the experiment.

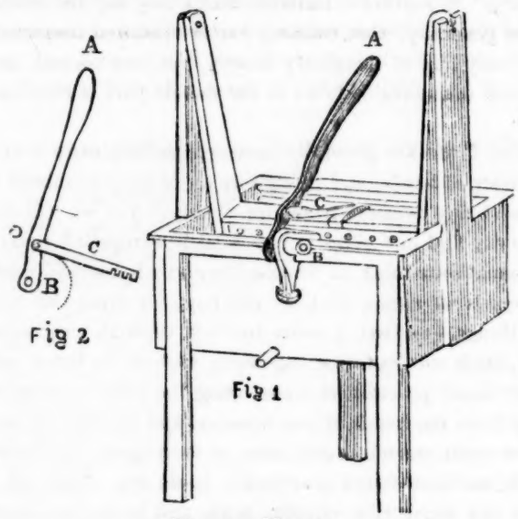
In my youth I remember to have seen a "mangle," as it was called, for smoothing clothes, instead of the flat-iron, and though I remember it did the work well, yet I have forgotten how to make one. Now, will not such friends to suffering humanity as may be able to give us the necessary information, do so upon this appeal, being assured of not only the thanks of every humane man, but of the enduring gratitude of the better part of creation.

To be specific, we need a plan of washing where the strength of man or horses may be made available. Some mode of getting the water out of clothes, except wring

ing by hand, and lastly, instructions how to make a "mangle," or other contrivance to supersede ironing. HOOSIER. *Indiana, Dec.* 1851.

The preceding remarks of our correspondent do not give an overdrawn picture of the difficulties endured by thousands. The fact is, one great drawback in the pleasures of rural life, is the wearing drudgery to which women are frequently subjected through the absence of good domestics. We therefore think it eminently worthy the attention of every friend of rural comfort, and consequently of rural improvement, to unite in a vigorous attempt to remove the heavy burdens, which are now loading down those for whom it should be our great pleasure to live and labor. Why then should not every paper devoted to the interests of country life, be willing to occupy a large share of its columns with this very subject? We hope our correspondents will favor us with anything valuable they may possess for reducing the amount of this domestic drudgery; and in the mean time we shall endeavor to answer such of the preceding inquiries as we may be able to do.

After trying different kinds of washing machines, the one represented and described on page 319 of the Cultivator for 1848, has been found decidedly the best, the writer of these remarks having used one in his family for eight years with much satisfaction. For the benefit



WASHING MACHINE.

of our new subscribers we repeat the figure. A boy ten or twelve years of age will work it with great facility, and it requires *not a third* of the labor of rubbing on the best wash-board. It is worked by an alternating motion of the lever A, turning on the hinge or pivot B, and communicating a thrusting motion to the bar C, which moves the perforated board like the swinging of a pendulum in the trough. The leverage is precisely like the elbow-joint of the old-fashioned printing press, and hence the box should be strong, for the pressure exerted against its side is enormous. The notched end of the bar C enables the operator to regulate the space occupied by the clothes. The levers are all made of cast-iron. The whole cost of one of these machines is five or six dollars. We know of no good washing machine worked by horse power.

A wringing machine for bed-clothes, is made by providing a shallow trough about 7 feet long, set on legs like those of a bench, at one end of which is fixed, directly over the trough, a simple wooden screw-vice. At the other end is a winch (or one-hand windlass) which is also furnished with a small screw-vice. The article to be wrung is secured at its extremities in these two vices, when by turning the winch, any degree of twisting may be given, the water pouring out into the trough beneath. Where but few bed clothes are washed, a shorter trough may be made, wringing half at a time, and serving for ordinary wearing garments. The trough should be lower at one end, under which a pail is to be set for receiving the water. Most of the water in washed clothes may be pressed from them by means of the washing machine just described, first draining the trough by drawing the plug with which it is furnished.

We hope in our next number to give a description of a *mangle.*

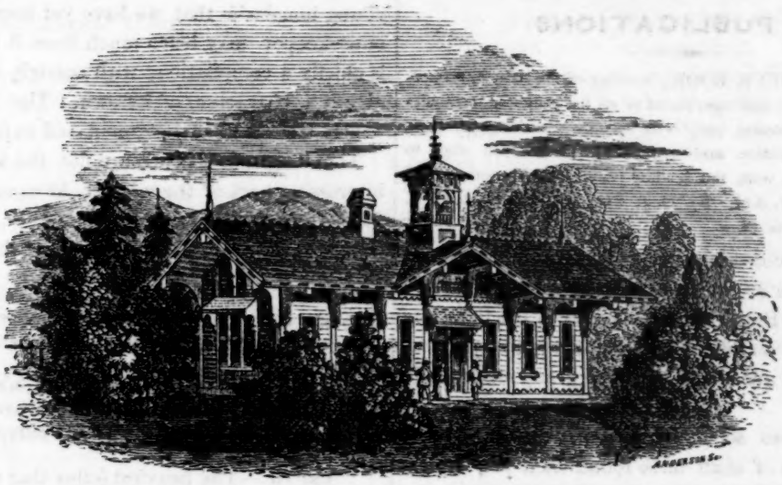
Will not some of our correspondents describe the machine for drying clothes?

We make a suggestion to our correspondent how to lessen the number of "hands" boarded in the family. Build neat cottages on a convenient part of the farm, and employ men who have families, and who will board themselves quite as cheaply as the farmer himself can do it, and pay them for this board in farm produce. The cottages must be neat, or the best hands will not occupy them; they need not be expensive. We have tried this method of getting labor with entire success.

Since writing the above, we have been favored by a kind neighbor and skilful housewife with the following directions, founded on full experience, for the use of *Crane's Soap*, which we believe is pretty widely disseminated through the country, and which may be had at a moderate price. Our own experience confirms its value, more especially on those occasions when domestics are missing, and the mistress or her daughters are compelled to do their own washing:

After having tried various methods of washing, and numerous varieties of soap, to cleanse clothes with little labor, I have become quite a convert to the efficacy of "Crane's Patent Soap" for this purpose. I have used it weekly for three months, and find it *all* that the inventor represents it to be. The ordinary clothing for a family of six persons, is generally washed, rinsed, and hung up in the course of three hours.

The process is very simple. I take a half pound of the soap, and slice it into two quarts of hot water, and keep it hot until the soap is dissolved; then pour it into a tub containing ten gallons of water, heated to about 100°. Let them soak half an hour—then rub them slightly with the hands, and if any articles are unusually soiled, I rub them on the board. It is astonishing with what ease every spot is removed. As you rub them out, throw them into a tub or boiler of scalding water, which may be kept hot by adding a dipper of hot water occasionally. Ten minutes in the scalding water is sufficient—then rinse and blue them as usual. The water in which the clothes were soaked may have a quarter of a pound, (or less according to the number of colored articles,) of soap added to it, and a little hot water. Then soak your colored clothes just as the white ones were; scald, rinse, starch, &c., as is usually done. My experience tells me that they do not fade nearly so much as with the ordinary hard soap."



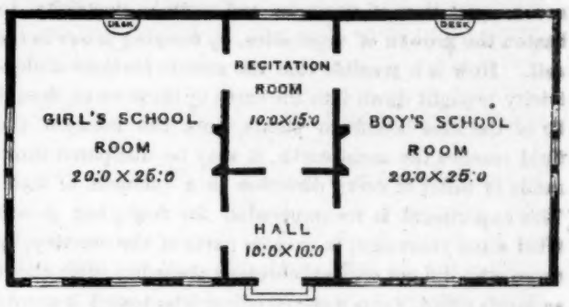
A Country School House.

No one can journey through any section of the country without being impressed with the fact, that school-houses are, generally, constructed without taste, convenience, or even comfort. Located in the geographical centre of the district—be that on a bleak hill-side or in a frog-pond—erected at as little cost as possible, with nothing without or within to make it attractive,—with no grounds save the public highway belonging to it,—like some relic of the past, stands the school-house. Popular sentiment demands better schools and more highly qualified teachers, than it did twenty years since; but in few instances, has a corresponding improvement been made in the edifices devoted to the primary, and almost the only education of children.

We present above a design for a School House, taken from the Horticulturist for January—a work designed to form and cultivate a correct taste in rural architecture.

"It has at least the merit (says Mr. DOWNING) of simplicity in the plan, and as it is a parallellogram, of economy in its construction. An entrance hall or lobby, opens into a large school-room for boys upon the one side, and one for girls upon the other. Between these two rooms is a recitation room, which may contain a book case for the school library. The exterior is bold and picturesque—the style a modification of the Swiss—and well adapted to many sites in our varied rural scenery. The widely over-hanging eaves afford a species of veranda shelter round the whole building. The style is exceedingly well adapted for a *wooden* building, and its details are so simple that any country carpenter of intelligence could construct such a school house without any further working drawings."

Now, we ask, does not such a building commend itself to the taste of every person, and contrast favorably with the rude structures so common everywhere? The Architect of Nature has not failed to scatter locations of beauty thick over our land, and scarce a school district can be found where a proper site for a model building does not invite attention. The additional expense of erecting a building in this style, is not worth a moment's consideration in comparison with the results, growing out of the change. The love of the beautiful is instinctive in childhood, and only the narrow prejudice of self-seeking man can see nothing to admire in the loveliness of nature, or in the fair proportions of art. Next to the attractions of the home fireside, the school should be



the most desirable and inviting place. Here does mind receive its first impressions and form its tastes and character. Here does the boy fix his standard of attainment, acquire his notions of gentility and propriety, and first learn to compare himself with others. An air of neatness and elegance should be given the school house, and in point of finish, decoration and furniture should equal the best apartment of a private residence. Children would respect such a building, would love to be in it, and what is more, would form there, habits of propriety which would save the man many a bitter lesson of mortification. Children imitate the manners of those around them, and rudeness is no more *natural* than politeness. This is not mere speculation. We have seen a school house which had been in constant use for three years, upon whose carpet there were no marks of the gormandising tastes of scholars, whose neatly stained desks showed no signs of the Yankee proclivity to whittle, whose walls were disfiguaed with no semi-barbaric artistic designs; yet there had been no blows struck in that school, there were no rules to prevent injury to the building. A *gentleman* had taught the school, and as naturally as effect follows cause, *gentlemanly* and *lady-like* scholars were in attendance. It is needless to remark that intellectual improvement was in perfect keeping with advance in other respects.

Thousands of dollars are wisely laid out every year in erecting churches after the best models, and decorating them according to the most approved standards of taste; and why should not equal pride be taken in combining beauty and fitness in the district school house? If architecture be the expression of ideas of beauty, if it has a meaning, will not six days in a beautiful school house do more in impressing the mind with a correct taste, than one in a beautiful church? Each has its appropriate place, is associated with its peculiar ideas, but in point of importance are so nearly allied that they should not widely differ.

NEW PUBLICATIONS.

THE AMERICAN MUCK BOOK; treating of the nature, properties, sources, history, and operations of all the principal fertilizers and manures in common use, with specific directions for their preparation, preservation and application to the soil and to crops; as combined with the leading principles of practical and scientific agriculture, &c. By D. J. BROWNE New-York: C. M. Saxton—420 pages 12mo.

THE Muck Book contains a great deal of valuable matter. This has been drawn from a large number of the best authorities on the subjects indicated in the title; the numerous analyses of plants and manures, are particularly valuable, and are not to be found in any other single treatise.

In sifting out from so many authorities, we observe that a few portions of chaff have found their way among what was intended for clear grain. One of these is the recommendation of common and voltaic electricity to hasten the growth of vegetables, *by burying wires in the soil*. How is it possible that the minute portions of electricity brought down into the earth by these wires, should be of the least benefit to plants, since the moment the fluid reaches the moist earth, it may be dissipated thousands of miles in every direction in a moment of time! This experiment is recommended for trial; but it was tried some years ago, in various parts of the country, by those who did not see its theoretical absurdity, with about as much effect, (as a western editor who tested it amply remarked,) as if two toads had sat winking at each other from opposite sides of the garden. It is true, the drill of beans and peas, planted immediately over the wire, grew much more vigorously than the others, in consequence, solely, of the deep trench of mellow earth made in laying the wire; and the grape-vine which grew so astonishingly at the foot of the lightning-rod, received its vigor from the deep bed of loose soil excavated in setting the foot of the rod into the ground. This was all. We are much in favor of experiment, when there is any probability or even possibility of success; hence we should not summarily reject the *twenty-six recipes*, given in the Muck Book, for special manures for different plants or crops; although their indiscriminate application to all kinds of soil, whether containing the same ingredients or not, might be regarded as approaching empiricism.

But we did not intend to write a review of the work, but merely to invite attention to its contents, the great body of which possesses high value, especially to the investigating farmer, to whom an occasional sprinkling of doubtful matter can be no objection, as such a farmer does not or ought not to take statements merely upon trust. Those who wish to advance towards perfection in the saving, manufacturing, and judging of the comparative value of manures, and in applying them with the least possible waste to crops, will find in this book a vast magazine of suggestions and advice, worth many times its cost and the labor of perusal.

THE SKILFUL HOUSEWIFE'S BOOK; or Complete Guide to Domestic Cookery, Taste, Comfort, and Economy. Embracing 659 receipts, pertaining to house-hold duties, gardening, flowers, birds, plants, &c. By Mrs. L. G. ABEEL, New-York: C. M. Saxton—200 12mo pages.

THIS work, from the pen of a well known and successful authoress. we think the best domestic guide for the young housewife that we have yet seen, and the veteran housekeeper may learn much from it that is useful. It is chiefly a compilation, with enough original matter to give it a character of its own. The selections are evidently the result of judgment and experience.

The "MORAL HINTS" are not the least excellent and interesting part of the work As examples of these, the following are about fair specimens:—

"SCOLDING.—I never knew one who was in the habit of scolding, able to govern a family. What makes people scold? The want of self-government. How then can they govern others! Those who govern well are generally calm. They are prompt and resolute, but steady and mild."

"POLITENESS.—The forms and ceremonies of politeness may be dispensed with in a measure, in the relaxations and intimacies of one's own fire-side, but KIND ATTENTIONS NEVER."

"TRUTH.—The heaviest fetter that ever weighed down the limbs of a captive, is as the web of the gossamer, compared with the pledge of the man of honor. The wall of stone and the bar of iron may be broken, but his plighted word NEVER."

"Childhood is like a mirror, catching and reflecting images all around it. Remember that an impious, profane, or vulgar thought, may operate upon a young heart like a careless spray of water thrown upon polished steel, staining it with rust that no after efforts can efface."

A score of pages are occupied with such gems as the above, which we should like every living person to read. The main portion of the book is devoted to directions for cooking, and the various operations of household economy, to a due share of excellent instruction for the treatment of the sick, preparation of simple remedies, and to a vast amount of miscellaneous facts, exceedingly convenient and useful for every woman to know. The price of the book, bound for the mail, is only 25 cents, and the postage but a quarter of that sum.

THE DAIRYMAN'S MANUAL, by G. EVANS.—We are indebted to the author for a copy of his work, consisting of the history and importance of the dairy, descriptions of the different breeds of cows, the management of the dairy, the diseases incident to cattle, &c. The book is neatly executed, and contains valuable information.

HARPER'S MAGAZINE for January, contains a biography of Franklin with forty-five illustrations,—follows Napoleon in his Egyptian campaign, and reviews the news of the preceding month. Carlyle and Dickens, each in his peculiar style, cater to the public taste, the one giving his impressions of the opera, the other in a ghost story. The editor's columns display some reflections, as well as amusing anecdotes, while Punch indulges in rare comicalities on the Bloomers.

THE INTERNATIONAL, is improving in matter and style, and is more decidedly American in its characteristics, than Harper's. The January number has some finely executed illustrations of the subterranean scenery of the United States,—a comparison of the poetry of Stoddard and Taylor, and a new poem by ALICE CARY. The foreign articles are well selected, and, as a whole, it has no peer in the literary monthlies of the day.

GRAHAM'S MAGAZINE, in point of execution, is decidedly in advance of its contemporaries. Its plates are beautiful, and it has a solid, substantial look about it. The contents will speak for itself.

Horticultural Items.

New Pears.—Among the best new pears, which have been to some extent tested are, *Lawrence*, medium size, and of first rate quality, ripening from late autumn into mid-winter, a fine grower; *Doyenne Boussock*, rather large, nearly equal in quality to the best White Doyenne, and a fine grower on quince; *Beurre Langelier*, an excellent winter pear; *Gray Winter Beurre*, (*Beurre gris d'hiver nouveau,*) medium in size, high flavored, a good bearer; *Tyson*, medium in size, melting and high flavored, a fine grower, and one of the very finest late summer varieties; *Autumn Paradise*, (*Paradise d'automne,*) rather large, of the highest quality, resembling Beurre Bosc, but in some respects rather superior; and *Dutchess of Orleans*, and *Beurre d'Anjou*, fine autumn varieties. Of those still newer to most, the *Bonne de Zees*, *Ott*, and *Brandywine*, among early pears, and *Suzette de Bavay*, for winter, have proved of high quality.

Western Apples.—B. Hodge, of Buffalo, in an article on the Pomological Congress of Cincinnati, in the Horticulturist, speaks of the high character of *Pryor's Red*, as cultivated in Kentucky, where, according to good authority, it has no superior and few equals. He asks if "any eastern cultivators have fruited this variety?" It has for several years borne fruit in western New-York, where it proves of fine quality, but does not equal in size nor in richness and full maturity of flavor, specimens received from Cincinnati. It appears that a great diversity of opinion prevailed as to the character of the *Cooper apple*, some pronouncing it "coarse and spongy," and "second rate," while others claimed for it the highest merit. The specimens which the writer has received from southern Ohio, although not equal to some of our most celebrated standard sorts in a *high* and *rich* flavor, were remarkable for their exceedingly *agreeable* qualities as a table fruit.

Cutting Down Lists.—Every person familiar with *Hybrid Perpetual Roses*, must have observed a striking resemblance, both in color and appearance, among a large portion of the named varieties. Probably a dozen of the most dissimilar might be made to embrace all that would be required in one garden. It is therefore rather amusing to observe the number embraced in the *reduced list* of Rivers' Catalogue, comprising only *sixty-seven* varieties, while a neighboring nurseryman still keeps as high as a hundred and ten. It is desirable however, not to reduce the list too low, as some excel in hardiness, others in free growth, and others still again in profuse flowering, while some may succeed best in one soil and fail in another. Hence the importance of some chance for selection and trial.

Fruit Packed in Ice.—It appears by a late number of the Horticulturist, that "an American has carried out peaches [packed in tin boxes encased in ice,] and had the pleasure of presenting them to his friends in England, in the finest preservation."

Transplanting a Loaded Pear Tree.—A large pear tree, 34 feet high, with a top 30 feet in diameter, was, according to the New-England Farmer, transplanted when loaded with fruit, without injury. A trench was cut, leaving a block of earth round the tree 12 feet square, and three and a half thick, about and under which a strong and tight plank box was made. A canal was then dug, along which the box was moved 32 feet to its place of destination. The weight of earth was 25 tons—the whole cost of moving, $50. The tree had about two barrels of fruit upon it.

Raising Apples from Cuttings.—One of the latest editions for this purpose, now going the rounds, is the following:—Select the kind of fruit you desire, then take a linen string and tie as near the top as may be—let it remain one season, and you will have one year's growth above the string, and close over it a *bulb* of new wood. Cut the shoot off at the bulb, and set it in the ground, and from the bulb will start out roots, and soon trees of dwarfish size will be seen groaning under a burden of fruit." This is partly correct, and partly humbug. Cuttings of the apple may be made to root in a hot-house and in some tropical countries, and the bulb would doubtless contribute slightly to this end. Add to the above, burying the shoot *under soil* as soon as the string is tied, and roots will soon be thrown out with much certainty. But there is nothing in any part of this work tending to form *dwarf* trees.

Value of the Fruit Crop.—The Commissioner of Patents, judging from statistics in his possession, estimates the present annual value of the fruit crop, at ten millions dollars. Downing thinks that in a few years, when the great number of young trees planted lately, come into bearing, the amount will not fall short of twenty-five or thirty millions.

Over Stock of Fruit Trees.—The editor of the Prairie Farmer, after wide observation, thinks that they of the west will not have enough fruit *for their own use* in much less than 15 or 20 years, so great is the number of trees which die of neglect, or are eaten up by insects. He also gives it as the opinion of the editor of the New-England Farmer, a man of great observation and experience, that at least one half of the newly transplanted trees in Massachusetts are starved to death—one-fourth more devoured by borers, cattle, bad trimming, and other enemies, so that the full proportion of those set, which *never bear an apple*, is three-fourths.

Transplanting Strawberries.—R. G. Pardee gives in the Horticulturist, the result of his experience in transplanting strawberries, on the 1st of June, 1st of July, and 1st of August; the first gives him a large crop the next year; the second, about half a crop; and the third about one-quarter of a crop. This is about in accordance with our own experience.

Apples—good Culture.—The Genesee Farmer informs us that Lewis Burtis of Rochester, has a young orchard, set 5 years, single trees of which have borne, in one case three and a half bushels of Baldwins; two and a half bushels of Rhode-Island Greenings; and half a bushel of Roxbury Russets—all of the finest quality—and all owing to high and attentive culture.

Moss on Trees.—The American Farmer gives the following as an excellent application to the scraped trunk to prevent the growth of moss, and destroy eggs of insects: 1 gallon of soft soap, 1 lb. flour sulphur, and 1 quart of salt, to be well stirred together, and put on with a hard brush

The Cultivator—Improvement of the Mind.

EDS. CULTIVATOR—Allow me, for the encouragement of the readers of your valuable periodical, to speak of some of the pecuniary benefits which I have derived from its perusal; and to make some suggestions, relative to the mental improvement of the agricultural class of community. And here let me remark in order that we may be the more able to judge correctly of the merits of the Cultivator, as an agricultural guide, that I am a young farmer, and always worked on the farm, under the instructions of my father, (whom I ever considered a good practical farmer,) until I was of age; since which time, I have had a separate interest, of about eight years, in a farm of about 35 acres of tillable land. There being no orchard on my farm, at that time, my first business was, to have one growing, as soon as practicable; which is now in a thrifty condition. But could I have had the knowledge, *then*, which I have *since* obtained from the pages of the Cultivator, with regard to the management of young fruit trees, my orchard, with *less* labor than has been expended in its cultivation, would have attained a growth sufficient to have returned, in fruit, more than two hundred dollars, before I shall, now, realise *one twentieth* of this sum.

At that period, there was not a rod of subterranean drain on my farm, although there was not a field which, in some parts, could not be greatly improved by draining. In this branch of agriculture, I had never had any instructions; and the business, in this immediate vicinity, was very imperfectly understood; therefore, I commenced reclaiming those parts, when a surplus of water was found, at a great disadvantage. While in some localities the first crop paid for the expense of draining, in others, the land was benefitted by the drain, *only on one side of it*. I relied for success upon the counsel and experience of those who had been engaged in the business, for a number of years; and whose advice is, "*cut your ditches in the lowest and wettest places;*" which a little science proves to be erroneous. But when the August number of the Cultivator for 1844 appeared, the mystery of some of my drains proving a failure on one side of them was unravelled. What volumes of instruction are reflected from that number on the subject of thorough and effectual draining! From the illustrations and remarks on draining in that number, I immediately discovered, by the application of the principles of geology to the practical purposes of agriculture, that the drains, which had been made, were several rods distant from the place where they *should* have been; and now, in order to secure my crops, for the future, from the injury of surplus water, *another* drain must be made, at an expense of twenty or thirty dollars. And here, allow me to copy from my agricultural notes, taken at that time, on this subject:

"In field number 1, thirty rods of ditch were made at an expense of ten dollars, and proves of little utility to the crops. This field slopes about 4 or 5 inches in a rod; and it has ever been to me, a mystery, why such ground requires draining; but the Cultivator, for the present month, has not only informed me the source whence the water comes, and where is the most correct place to make a drain, which will cut off the water veins, but has been the means of my *unlearning* what I had learned amiss, on the subject of underdraining. * * * The loss of grain, on this ground, by winter-killing, and the expense of making another drain, which is necessary, I may, with safety, reckon at one hundred dollars. So much for the information on two or three pages of the Cultivator." I might speak of other pecuniary benefits which the cultivator has been to me; but I forbear, for fear of prolixity.

To attempt a computation, in dollars and cents, of the value, or benefits which the Cultivator has been to me, in a *mental* point of view, would be the height of absurdity. But I have no hesitancy in affirming, that, could we, by any means, arrive at anything *tangible*, the stipend would double, treble, aye, *quadruple* the amount already mentioned. Its instructions and suggestions have been and are even now, a source of infinite satisfaction to me. It has had more influence in inspiring a desire for correct thought and investigation, on the subject of agriculture, than all other periodicals and books combined.

Who dares make an estimate of the value which the analytical communications, of distinguished chemists, *may* be to me, in saving economically, in correctly preparing, and judiciously applying manure to the soil, for the benefit of crops? Who is able to assure me, that the foundation for agricultural education, which has been laid, by the perusal of the Cultivator, will not in years to come, pay for a thousand copies of it, for one year in advance? Who can tell, that the result of some experiment recorded in the Cultivator—some suggestions—some manner of performing certain kinds of labor on the farm, will not prove, in future years, a revenue of many hundred dollars?

But what I have learned from the Cultivator, others may have the equal benefit of. A person of superficial knowledge, passing through the land, could not fail to discover scores of opportunities for the application of science to the practical part of agriculture. There are yet vast and boundless fields unexplored in the grand science of agriculture, which is teeming with so much magnificence and delight, towards the highest state of perfectibility. And if young men would keep pace with the more important improvements of the age in which they live, which are making such gigantic strides, they must labor most assiduously, or they will be left far in the distance. If they wish to be a *nonentity*—a being which the human race would be ashamed to own as one of their numper, and an abuser of heaven's richest gifts, let them relax all efforts—throw off all restraints; and a few years will have accomplished that object. There is no "*jump on and ride*," in the road to usefulness, honor and renown. Every one has a *mind* which he is under obligation to cultivate; and in this day of intelligence, there can be no excuse for any one, who does not avail himself of the facilities for acquiring a respectable education.

Now the Cultivator is most happily adapted to impart aid, to any one, whose motto is *improvement*. The contents of the Cultivator in a good degree are worth *studying*. The novice may here study the *first principles* of agriculture; and the result of such efforts will not fail to improve the mind and the purse.

I am well aware, that young men plead a "*want of time.*" But, if there is a *disposition*, perhaps no class of citizens have more leisure hours, and greater opportunities for reading and reflection, than farmers. What great inducements the long winter evenings hold out to the agriculturist, after his daily task is done, to cultivate the mind, and to store it with useful knowledge! It seems as if it was one of the creator's prominent designs, in sending long evenings in winter, that farmers, while the earth is being prepared to yield food for the sustenance of their bodies, might be treasuring in the storehouse of the mind, that knowledge which will tend to make them wiser, and mankind better.

It is, undoubtedly, too true, that most young men, who labor on the farm, hate anything like mental application; and when they are not engaged in manual labor, time hangs heavily upon them. Therefore, as a pastime, they frequent the store, the hotel, or any other place of public resort, to hear the news, tell and hear silly stories; and in many instances, engage in very unbecoming amusements—in ludicrous nonsense, &c.

I would not depreciate the social circle; indeed, it should be the aim of every young man to go into the society of the wise, the intelligent and the good. It is a very important part of education, to know how to *use* knowledge for the benefit of ourselves and others. But the place where the song of ribaldry is sung, and the indecent story told, for the purpose of exciting laughter

and the sordid passions, should be, *and will be shunned*, as we would the pestilence, by every one who is desirous of being a useful and respectable citizen, and of leading a virtuous life. The history of the past, furnishes any amount of the most indubitable demonstration, that such practices, eventually lead to *wretchedness* and *ruin*.

What would be thought and said, if our mothers, wives and fair daughters, should embrace every opportunity of spending their leisure hours at some public place of resort, in *gossipping twattle*, or at the *chess-board*!

There are thousands of leisure moments, during the year, of which multitudes make no reckoning; but it is astonishing to consider how much may be accomplished, in the way of acquiring knowledge, by appropriating such moments to a proper use. Moments when *I* have nothing to do, I know nothing of. When I am disengaged from manual labor, which occupies my energies summer and winter, from ten to sixteen hours a day, on the farm, or in the shop, if I am waiting a few moments for dinner, I have something at hand to read. In cold weather, when I come in to warm myself, I snatch up the Cultivator, and in ten minutes or less, a page is read, which will furnish something for reflection while at work. In this way, I have been accustomed to peruse three agricultural papers, three religious papers, one political, Missionary Herald, Home Missionary, a magazine or two, besides scientific and literary standard works. When I sit down for the evening, I have pen and ink at hand; and when a good train of thought is suggested, it is jotted down. If I meet with the chemical name of a substance, with which I am not familiar, I search it out, and learn its use in the practical purposes of life. Mark the paragraphs which are particularly worthy of note; and read them again. Perhaps, pen a few lines connected with the subject. So with the botanical name of a plant: it is looked out in the botany; its common name, class and order, genus and species, &c., are laid up in the store-house of the mind for use, when I am "away from books, and among the flowers."

It will doubtless be said, that "this is rather a slow way of reporting progress." Be it so. It is a *sure* way. And those who have never been favored with a systematic course of instruction, must, like myself, *blunder along* through the world. But none need despair, so long as we are favored with so many illustrious examples, of what a young man *may* be, which have been left us, by many who have risen from obscurity, by their own exertions, to stations of eminence and distinction. What powerful motives are presented, to restrain us from habits of indolence and vice, and to inspire with a laudable ambition, in the history of the many wise and good, who are now sleeping in the dust! Stimulated by the success of the past, let us

"Work on and win."

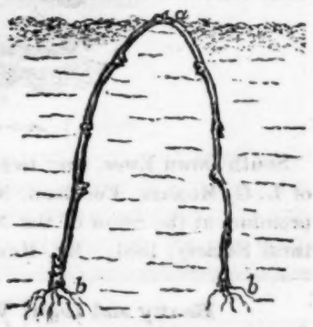
S. Edwards Todd. *Lake Ridge, Tompkins county.*

Live Stock in Texas.

A letter from a friend at Matagorda says—"This portion of Texas is divided between the planters and stock raisers; the former occupy the rich alluvial lands of Caney and the Colorado, and the latter the extensive grassy prairies adjoining. Neat cattle here are very hardy, and have never been affected by contagious diseases. They are the descendants of the cattle brought from Spain and the Canary Islands by the early Catholic Missionaries, but they need much to be improved by imported stock. During our wars with Mexico, what between our own commissariat, and the hungry forages of our enemy, our stocks of cattle were nearly exterminated, but a few years of peace under the wings of Uncle Sam's eagle, have caused the cattle to increase to untold thousands. The raising of sheep has just commenced about here; at present there are not more than two thousand in the county of Matagorda. Stocks of cattle are worth three dollars per head, all around. Pasturage costs nothing, and beef cattle can be shipped from a dozen points on this bay to New Orleans, where there is always a ready market. Another source of profit to the small farmers here, is honey bees, which yield an abundance of their peculiar sweets with little trouble and no expense. Mr. Robbins has now about four hundred hives; they stand on the ground, and I believe have never been troubled with insects."

Fruit Trees from Cuttings.

We have never been able to see what great advantage would be gained by being able to raise fruit trees from cuttings immersed simply into the soil, over the common practice of first inserting the cutting into a portion of root, and known as root-grafting—the former being uncertain at best; the latter, when well done, never failing of success. There is, however, a method of treating cuttings, not entirely new, which has been strongly recommended in some of the European journals, which may be highly useful in propagating some kinds of trees and shrubs; and, under favorable circumstances, may be adapted to grapes, quinces, and some other sorts of fruit. It consists simply in bending a long cutting into the form of the letter ∩ inverted, the two limbs being immersed into mellow soil, and leaving one good bud at the summit, at the surface of the soil. In this way, the cut end, instead of becoming the seat of dryness, by evaporation from the open pores, is shielded below by contact with the moist earth. A cut surface at the end will throw off moisture several times faster than the pores through the surface of the bark, and hence the advantage of this method. If desired, one of the arms may be cut off and removed, after the cutting is well rooted, or two made of each one.



Double bent cutting—*a*, surface of soil—*b*, *b*, new rootlets from lower extremities.

The way Weeds Multiply.

Dr. Lindley estimates as a low average the following number of seeds from each of these four plants:—

1 plant of	groundsel	produces	2080	16,360 plants.
1 "	dandelion	"	2740	
1 "	sow thistle	"	11,040	
1 "	spurge	"	540	

or enough seed from these four plants to cover three acres and a half, at three feet apart. To hoe this land he says will cost 6s. (sterling) per acre, and hence a man throws away 5s. 3d. a time as often as he neglects to bend his back to pull up a young weed before it begins to fulfil the first law of nature. He recommends every gardener, whose vertebral column will not bend, to count the number of dandelions, sow-thistles, &c. on the first square rod he can measure off. This same operation may be repeated in this country, by applying all the above estimates to the pig-weed, burdock, mullein, fox-tail, chick-weed, and purslane.

South Down Ewes, over two years old, the property of L. G. MORRIS, Fordham, N. Y.,—received the first premium at the Show of the New-York State Agricultural Society, 1851. Mr. MORRIS' South Downs have, several of them, been obtained from the noted English breeder, JONAS WEBB, and are excellent specimens of that breed, so famous for the production of fine mutton.

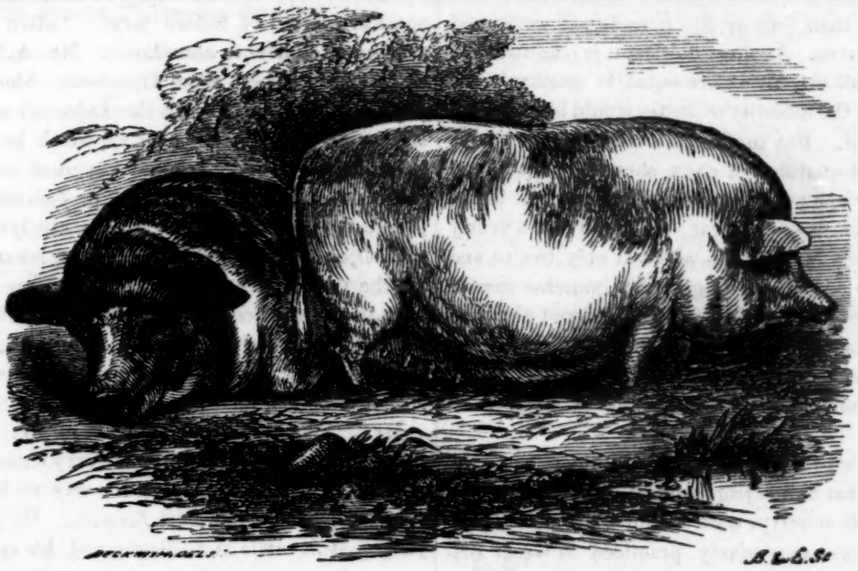
Heavy and Light Wooled Sheep.

EDS. CULTIVATOR—It has become a matter of great importance to the wool-grower to know what kind of wool can be most profitably grown at the present time; and in view of the low prices paid for fine wool, we may well inquire, can we any longer afford to keep fine wooled sheep? The manufacturers and their agents have desired the farmers to hold on to fine sheep, telling them that the time would come when they could make the proper difference; but most people think they have waited long enough, and show a determination as quickly as possible to get a kind of sheep that will yield them a better profit. This is not strange, when we take into consideration the relative profits of coarse and fine wool. Take, for instance, a flock of fine wooled sheep that cut but 2¼ lbs. of wool, and some will not do even that; but assuming the average to be 2¾ lbs., and that of the hardy gummy merino, so much in fashion at the present time, which cut from 4¼ to 5 lbs. per head, and allowing the fine to sell for 44 cents, which is about the present price, and the coarser kind to sell for 40 cents, here would be a difference of 59 cents per head in favor of the coarse kind. Now the question is, what are we to expect in future? Will the manufacturers continue to pay almost as much for gum and dirt, as they have heretofore done? If so, they will every year find a great increase of it on their hands, for it is a notorious fact that the kind of bucks now most in demand, are such—at least many of them—that their wool would lose from 30 to 50 per cent in cleansing. The demand for sheep of this description is fast increasing, and will command a far greater price than the finer varieties. In proof of this I would state, that lambs of this grade, from which to raise a flock, consisting of ewes, and some rams, have lately been sold in this vicinity for $2.00 per head, when the finer kinds would hardly bring half the money. Our neighbors in Vermont, with a foresight which seems natural to them, have long been breeding the heavier kinds of sheep, and in many instances have succeeded in attaining a great weight of fleece, many flocks shearing 5 lbs. per head. Now, if in that state, where sheep farms can be bought from $3 to $10 per acre, they cannot afford to grow the finer and lighter grades of wool, how can we here, where land is worth from $25 to $40 per acre. People are beginning to look to their true interest, and will not continue a business that will scarcely pay the expense of keeping and attendance, loss, &c.

Many who kept large flocks of sheep in this county, (Washington,) have quit the business, and gone into the dairy business, which is much more profitable, for when cows are rightly managed, it is not uncommon to realise from $30 to $40 per head. Almost any kind of business will pay better than growing wool at 2¼ lbs. per fleece. Potatoes are now being raised in large quantities; and although they may not yield half of what they formerly did, yet with the increased facilitites for getting them to market, they are one of the most profitable crops grown. Flax is also becoming a most profitable business—the quantity sown is annually increasing, and when those newly invented machines for dressing without rotting, shall come into general use, the cultivation of it will probably be greatly increased.

In view of all these things, it may be well to inquire what can be done to save our finest sheep from destruction. I have been in the sheep business for more than twenty years, and wish to continue in it if I can live by it, and keep the quality of the wool up to its present standard, and at the same time increase the weight of fleece. My object in this communication is to obtain information through your columns, where there are any of those fine merinos, such as were common before the introduction of the Saxony sheep, which cut heavy fleeces with but little waste.

Those French merinos lately imported by S. W. JEWETT and others, would probably be a profitable kind of sheep, and from samples of wool now before me, from Mr. Jewett's flock, I am inclined to think there wil be



Chinese Swine, the property of JOHN DELAFIELD, Oaklands, near Geneva, N. Y., presented for exhibition only, at the show of the New-York State Agricultural Society of 1851. There are several distinct varieties of swine in China, some of which have a remarkable tendency to fatten, and have been the source of the principal improvement which has been made in the aboriginal stocks of Great Britain, from whence most of our stock has been derived. The Chinese swine are frequently very prolific, producing from twelve to fifteen pigs at a litter. One of those herewith delineated, was suckling thirteen pigs at the time of the show.

less waste in it than in the others noticed above; yet the quality of the wool is far inferior to our best wool in this country; and the cost of these sheep will prevent men of ordinary means from profiting by them, although I doubt not but it will prove a profitable speculation to those enterprising gentlemen who are interested in it. Many who have not yet changed from light fleece to heavy, tell me they will do so next year, but most are desirous of obtaining a finer variety than those noticed in this article.

Any person owning a flock of pure merinoes, with heavy fleeces, with but little waste in the fleece, and who would sell at a price which men with common means could afford to pay, would do well to give notice of the same in the Cultivator, stating the average weight of their wool for some three or four years past, and also the price obtained for it the same length of time; the time of year when sold, and if possible, the amount of waste in cleansing. Could sheep of this description be obtained, to cross with our grade Saxons, we might yet hope to preserve a remnant of our fine sheep from destruction. W. M'C. *West Hebron, N. Y. Dec.* 15, '51.

Indelible Ink for Marking Labels for Trees, &c.

EDS. CULTIVATOR—I am so much pleased with an article of ink for writing on zinc, made by Mr. HENRY H. KELLEY, No. 288 North Second street, Philadelphia, that I am induced to inform you of it, that you may publish it for the benefit of your readers.

It is a black ink, writes beautifully on zinc, and will bear exposure to the weather for many years. It can be obtained of Mr. Kelley for $1.00 per pint.

I know of no method of labelling trees so economical as to cut small cards of zinc, mark them with this ink, and attach them to the trees by a loop of copper wire. JOHN WILKINSON. *Mount Airy Agricultural Institute, Germantown, Pa., Dec.* 6, 1851.

Stock for the Dairy.

Considering the importance of the dairy in this country, it is a matter of surprise thas so little attention is paid to the character of the stock devoted to this object. According to the statistical returns of New-York for the year 1845, the whole number of milch cows in the state, was 999,490. The total produce of butter is stated at 79,501,733¼ pounds, and the total produce of cheese, 36,744,976 pounds—equal to 79¼ pounds of butter and 36 pounds of cheese to each cow. The greatest quantity of butter, returned from any one county, where no cheese was mentioned, was 110 pounds, from Kings. The greatest quantity of cheese per cow, returned from any one county, was 226 pounds, from Herkimer; but it is probable that some butter was produced from the same cows, in addition to the cheese. From the township of Fairfield, Herkimer county, 350 pounds of cheese were returned per cow. The dairy produce of cows, in quantity and quality, depends on their natural constitutions, and the treatment given them in reference to food and other requisites. Both these points should receive from dairymen the strictest attention, if they expect to receive the greatest profit. Every farmer may know that there is a great difference in the constitutional properties of animals. Some, from an inherent principle in their organization, can produce from a given amount of food a greater amount of flesh, or fat, than others; some yield a greater quantity of milk or butter, under the same circumstances. It may have been noticed that these constitutional traits are, to a certain extent, hereditary, and that families or breeds are characterised by peculiar propensities, which greatly effect their value for special purposes.

The difference in the amount of butter yielded by cows in the same dairy and subjected to the same treatment in every respect, often amounts to 100 per cent—some

giving not more than four or five pounds per week, and others ten to twelve. In most dairies, it is reasonable to believe that, if all the cows were equal in quality to the best in the herd, the quantity of butter would be increased at least one-third. But suppose attention to the breed, or constitutional qualities of cows, should result in an increase of only one pound per week for each cow in the state, for six months of the year,—it would give a yearly increase of 25,986,740 pounds, which at only twelve and a-half cents per pound, would give the immense annual return of $3,248,382½. When it is considered that this is but for one state alone, some idea may be had of the vast benefits which would result to the whole country, from an improvement that might readily be attained in milch cows.

The systematic breeding of cattle with reference to the dairy, or with that as a *primary* object, has scarcely been attempted in this country, until within a late period, and indeed has not been extensively practiced in Great Britain,—the great aim of the most eminent breeders having generally been the development of the fattening principle, beef being in England an object of more consequence than butter and cheese. It is, however, gratifying to see that the establishment of breeds for the dairy is now beginning to be regarded as essential to the progressive improvement of farm husbandry, and it cannot be doubted that the proper application of the laws of animal economy, will be attended with as great success in this department, as has been realised in breeding for other purposes.

A Farm in Western New-York.

EDS. CULTIVATOR—I am induced to give you a description of a 600 acre farm, lately purchased by Hon. ALLEN AYRAULT of Geneseo. It is situated near Mount Morris; one half upland, gravelly and sandy soil, the other half flats divided about equally by the Genesee Valley canal. When Mr. A. first came into possession of the first part of this farm, 100 acres, it was very much impoverished by constant cropping—receiving but a very illiberal share of manure. Since that, he has purchased 200 more adjoining. It is astonishing to see the contrast, the road only dividing the two purchases. The former has been occupied by Mr. A. four years, the other he purchased this spring with the crops. On one side the surface is covered with beautiful waving crops, the other with the most pernicious weeds and miserably light crops. Mr. A. intends to make this a valuable farm by a proper mode of cultivation. He has numerous never-failing springs on the elevated land, which supply his fields below and his barn-yards and stables, with a constant stream of water, both winter and summer. Many of his fields are supplied with spring water by a penstock in the corner of a field, for the use of two or more lots. A small peg is taken from either side of it to suit the convenience of each.

He has built a large barn, to which is attached a stable for fattening cattle, a stall being provided for each animal, with a gate to enclose him. Here he lies loose on a thick bed of straw, which absorbs all the urine; he sleeps at his ease, and gets fat at his leisure, being well supplied with well cured "*early cut hay*," and an economical portion of Indian meal. Indian corn can be grown on the flats in abundance. Mr. A.'s stock of cattle are promising; some Herefords, Short-horns, and grades; sheep a cross with the Leicester and Cotswold. He has a white breed of pigs, of which he keeps about 75 in number, which I should say were tolerably good, but not equal to the Berkshire or Leicester for profit. A number of sows with their pigs are lying in a clover field adjoining the house, in which there is a small pen made for the young ones to get in, and they are there fed with corn in the absence of their mothers. These are destined for the Brighton market, when weighing about 50 to 75 lbs. each, where they meet a ready sale at remunerating prices.

Mr. John Ayrault, a nephew of Mr. A.'s, has the management of this farm, and a very enterprising young man he is. I think he is on his way to become one of the *few good and thorough farmers*. He possesses good judgment in cattle and tillage; and his system of neatness and economy will in a short time rank his farm amongst the best. He is growing roots of various kinds to test the value of each, and intends by careful observation to prove the feeding quality of each variety. The noted Skirving Swede turnep is amongst the number in this experiment. I have always placed a high value on this root, and if Mr. A. is successful in growing them, it will afford a sample for the public to judge from. It is my impression that more beef and mutton can be made per acre from this bulb than any other root.

Mr. A. has a large cellar under his barn, capable of storing a great quantity. A door opens into his feeding room very conveniently for the herdsman. Every animal on the premises is kept in the highest condition, but economy in the management of food is strictly adhered to. There is a small "American Cottage" near to the barn, of which Mr. Ayrault was his own architect. It is sheltered by a hill of picturesque shape, adorned by the forest above it. This is improved by the woodman's axe and spade, under the guidance of Mr. A.'s good taste. A winding carriage road leads through the wood, and when you reach the summit of the hill it commands a view which for beauty cannot be excelled in this country. The Indians lingered long on this spot, and it was a favorite resort for them, a circumstance which is pretty good proof of fertility.

We had quite a spirited plowing match at Geneseo a few weeks since, on the farm of Mr. North. The furrows were straight, deep, and well turned, but I cannot reconcile myself to say they were sufficiently *narrow* to be called "*scientific*." I am fully convinced that a narrow furrow is very important on sod ground, more especially when Indian corn or other grain is put in with only one plowing. I am inclined to believe that clover sod plowed *narrowly* once, in August, is as good for a crop of wheat, as summer fallow. The thistles and other weeds must be kept down. WM. H. SOTHAM.

GREENWOOD CEMETERY.—This celebrated cemetery, near New-York city, which taken altogether, is regarded as unsurpassed by anything of the kind in the world, has we are informed, employed of late about three hundred persons constantly in the preservation and improvement of the grounds; which will give some idea of their extent and keeping.

Plows should Pulverise the Soil.

The pulverisation of the soil—or especially tenacious soil—is of great importance to the development of its capabilities for the support of a crop. Hence in plowing, it becomes a matter of the highest consequence to obtain the implement which will most perfectly effect this object. In the trial of plows by the New-York State Agricultural Society, in 1850, this was regarded as one of the most essential points, for "stiff soil," and we are glad to see that it is receiving much attention in England. Mr. PETER LOVE, an English farmer of considerable distinction, has written a letter to the *Mark-Lane Express*, in which he makes some excellent remarks on the action of plows in reference to the purpose alluded to. He says:

"If it be the fact that the primary object of cultivation for the production of the various agricultural crops, is a well pulverised soil and porous subsoil, then the farmers ought to draw out the ingenuity of our agricultural mechanics, by giving prizes for those plows that will invert without smoothing and smearing the under strata, and most effectually pulverize the greatest quantity of land a given depth with the least amount of power, instead, as the present practice is by all our agricultural societies, awarding prizes to those plows that cut out a furrow with all three of its cut sides well smoothed and smeared up, and turned over in as unbroken a state as possible, so that it will shine from one end to the other, like a well moulded piece of concrete, and the bottom of the furrow well polished over by the friction of a broad soled landside and wrest, thus rendering the under strata almost impervious to either air or water.

"If we could have a plow so made that it would, in the act of inverting the furrow-slice, break it into pieces, and pass over the bottom of the furrow without the friction of any smooth surface of iron or other material being drawn over, closing up all the pores and fissures in the under strata, I think there is little doubt but such a plow's cultivation would approach (when performed at equal depths) fork cultivation.

"There are a great many of the best farmers who are of opinion that it is a great advantage to have the furrows turned as completely over as possible. But the great evil is that when the plow is set to turn the furrow so, the solid furrows require so much harrowing to prepare the land for the dibble or the drill; but such would not be the case if we had plows that in the act of turning over the furrow would well crack, rent, and break it, and completely invert it, and cut it up from the under strata without smoothing the bottom of the furrow, closing all the pores and fissures thereof."

Cultivation by Steam.

An interesting article was published in The Cultivator, from the Ag. Gazette, on the proper mode of applying steam to the purposes of tillage. The author of that article has written several others on the same subject, which have appeared in the journal before mentioned, one of which contains the following ideal description of the machine which he supposes is destined to take the place of the common plow:

"Before you depart this life, you will see one more wonder moving upon the face of the earth, something of this form and fashion—to wit: A complete locomotive engine on four wheels, with tires 10 inches broad, and slightly corrugated cross-wise on the face, the fore wheels turning on a transome, the hind ones fixed; behind them (suspended) a transversed, cylindrical shaft, three feet in diameter, from six to eight feet long, reminding you of a cross-breed between a clod-crusher and hay-tedding machine, armed with case-hardened steel tine-points, in shape like a dog's claw, each tine-point alternately long and short, so that the side-lap of each claw may cover the work of the other, and no interval or ridge be left unrent: the extremities of the cylinder just covering the wheel tracks. This formidable looking cylinder of claws, you will see raised or depressed at pleasure by the engine driver, and adjusted to slow or rapid revolutions, not worked by clog-wheels, but by one of the new metalic bands, geared from the drum of the engine. That is the 'Cultivator.' A platform from the engine extends over it, ending in a sort of movable tail-board, which may be raised or depressed at pleasure, to regulate the settlement of the soil which scatters from it. The revolution of the cylinder is not *against* but *with* that of the wheels, not dragging or retarding, but helping the advance of the whole machine, which is moved slowly forward (about half-a-mile an hour) by a detached force of about two horse-power, from the same engine."

Farmers' Families.

Major PATRICK, in his address before the Jefferson county (N. Y.) Agricultural Society, gave the following advice in reference to the improvement of farmers' families. Speaking of the practice, which prevails in some families, of keeping a portion of the dwelling almost wholly closed, he said—

First: let the *front* part of that house be thrown open and the most convenient, agreeable and pleasant room in it be selected as the *family room*. Let its doors be ever open; and when the work of the kitchen is completed, let mother and daughters be found *there* with their appropriate work. Let it be the room where the family altar is erected, on which the father offers the morning and the evening sacrifice. Let it be consecrated to neatness, and purity, and truth. Let no *hat* ever be seen in that room on the head of its owner; let no *coatless* individual be permitted to enter it. If father's head is bald (and some there are in that predicament,) his daughter will be proud to see his temples covered by the neat and graceful silken cap that her own hands have fashioned for him. If the coat he wears by day is too heavy for the evening, calicoes are cheap, and so is cotton wadding. A few shillings placed in that daughter's hand ensure him the most comfortable wrapper in the world; and if his boots are hard, and the nails cut mother's carpet, a bushel of wheat once in three years will keep him in slippers of the easiest kind. Let that table which has always stood under the looking-glass, *against the wall*, be wheeled into the room, its leaves raised, and plenty of useful (not ornamental) books and periodicals be laid upon it. When evening comes, bring on the lights—and plenty of them—for sons and daughters all who can—will be most willing students. They will read, they will learn, they will discuss the subjects of their studies with each other; and parents will often be quite as much instructed as their children. The well-conducted agricultural journals of our day throw a flood of light upon the *science* and *practice* of agriculture; while such a work as Downing's Landscape Gardening, laid one year upon that centre table, will show its effects to every passer-by, for with books and studies like these a purer taste is born and grows most vigorously.

To Destroy Calamus or Sweet Flag.

EDS. CULTIVATOR—In reply to your correspondent who inquires as to the best mode to destroy "Calamus or sweet flag," I would say that I succeeded in destroying a strong growth of it, by repeated plowings and harrowings for two successive seasons. It is necessary however, to drain the land on which it grows thoroughly first. WILKINSON. *Mount Airy Agricultural Institute, Germantown, Pa., Nov.* 1, 1851.

No man has ever regretted that he was virtuous and honest in his youth, and kept aloof from idleness.

Lightning Rods—Protection of Barns, &c.

EDS. CULTIVATOR—The common opinion is, that a lightning rod attached to a barn or other building, is intended to receive the shaft of lightning after it has left the cloud, and conduct it harmlessly to the ground. This it may do sometimes, but I am clearly of the opinion that this is the smallest service that it renders. I propose in this paper, to enter into the subject at large, and to examine it thoroughly, with a view to its more clear elucidation. for the benefit of farmers and others. The cause of a thunder storm, is a disturbance of the equilibrium of the electricity of the earth and the atmosphere. Thus, if a cloud be more highly charged with electricity than the earth beneath it, there is a disturbance of the equilibrium, the cloud becomes positively and the earth negatively charged, in relation to each other, and an explosion or discharge from the cloud to the earth will necessarily take place, unless some medium be provided for conducting the excess of the fluid from the cloud to the earth. A damp atmosphere between the cloud and the earth, connecting them, will accomplish this. And in all cases of this disturbance, there must necessarily be a stratum of very dry atmosphere between the cloud and the earth. Let us suppose a storm approaching. A heavy black cloud approaches rapidly from the northwest. It is highly charged with electricity. Every body expects a thunder storm. Now, the question is, how can this threatening storm be prevented? I believe it can be in all cases. The prime conductor of a powerful electrical machine, represents an over charged cloud. A powerfully charged Leyden jar, represents the same. Now, when either of these are fully charged, if you hold with your fingers the point of a needle towards them, you will gradually,and insensibly,discharge them. If you are smoking a segar, and approach the burning end of it near the jar of the conductor, you will effectually discharge them through your own body, unfelt. Whereas, if you approach either with a blunt object, say the knuckle of the finger, you will in the case of the conductor, receive a sharp spark—a miniature streak of lightning; in the case of the Leyden jar, a violent shock. On this principle I have taught many a little girl to play tricks with the powerful electrical machines at the museums. I direct them to hold a needle, or even a pin, between the knuckles of the fingers, the point only projecting to a level with the apex of the knuckles, so that it will not be seen; and as the operator turns his crank to get up a charge, hold the knuckles within an inch or two of the prime conductor. If she do this, in vain shall the operator strive and labor to get up a charge. If she allows him to get the conductor fully charged, and then hold her knuckles, with the pin between them, to the prime conductor, say within an inch, it will be immediately discharged—and the operator is struck with wonderment, being unable to account for the failure of his experiments. So, also, shut the fingers of the hand closely, and let the knuckles represent a row of houses. Place a sharp pointed pin or needle between the two middle knuckles, the point not higher than the knuckles. Now hold the knuckles towards the prime conductor, approaching ever so closely, and there will be no spark seen,however vigorously the machine may be worked; but, without withdrawing the knuckles, merely relax them so as to drop the pin, and instantly the knuckles will be struck by the spark. You may use the pin in any way you please, and you cannot *attract to it a spark*; but you can discharge the prime conductor of the Leyden jar of all its excess of electricity, as before described. In these cases the excess of electricity passes over the point of the pin, and the body of the person holding it, unseen and unfelt. When these experiments are performed in a very dark place, the point of the pin is seen to be very luminous while the conductor is being discharged.

Now, what is expected to be elucidated by these experiments in relation to the subject of lightning rods, is this:—The great prime object of a lightning rod, is to form a medium through which the equilibrium of the electrical state of the earth and air may be re-established, or its disturbance prevented. Suppose a cloud to be approaching, heavily charged with electricity, directly over a barn filled with the fresh harvest. If that barn be provided with a good lightning rod, it may by chance be protected by the rod receiving the shaft as it descends. But suppose several good lightning rods were erected at a distance to windward of the barn, they would effectually discharge the cloud of its electricity before it reached the barn. And here permit me to remark, that I believe a lightning rod affords more protection to some neighbor's buildings to the leward of it, than it does to that on which it is situated. According to my ideas of the laws of electricity, the proper protection of farm buildings should consist in the erection of lightning rods on several very high trees, or other elevated objects at a distance of at least a quarter of a mile from the buildings, in such directions from them as such storms usually come from, say, north, north-west, west, south-west, south and south-east. I would also erect lightning rods on all the buildings, for special protection. If a dozen lightning rods were thus erected on a farm, and properly adjusted, I do not see how it would be possible for the buildings on the farm, or anything else, to be struck with lightning.

The reason why so many barns are struck by lightning every summer,is very obvious. We rarely hear of an empty barn being struck. Barns filled with the freshly gathered harvest, are the usual victims. The reason is, there is a large column of vapor passing upward from the barn, and presenting to the over-charged cloud a large blunt point of attraction. This column reaches an altitude much higher than any lightning rod can do. It is a very powerful attractor of electricity. (This may also be illustrated by holding the mouth within a couple of inches of the prime conductor of an electrical machine, and breathing upon the conductor, which will immediately discharge it, insensibly to the operator.) Hence, as the cloud arrives over the barn, with its load of electricity, the column of vapor being the nearest object of attraction, causes an explosion or streaks of lightning. If this column could have been prepared with a sharp metallic point, it would have discharged the cloud without an explosion. In this connection it becomes important to observe that the grain and hay should be made as dry as possible before it is placed in the barn or large stacks. If it were perfectly dry, the barn would be in no more danger from lightning than any other building.

The above theory applies with equal force to all cities and villages. It is believed that one hundred lightning rods properly arranged, (and of this we will speak presently,) would effectually protect the whole city of New-York against lightning. Suppose such should be erected on Long-Island, on the heigts of Brooklyn, of Hoboken, on all elevated places around the northern suburbs,at suitable distances and throughout the city, especially upon all high buildings,steeples,towers,&c.? If such were done I do not see how it is possible for any house in that city, or anything else to be struck by lightning, because every cloud, from whatever quarter it might approach, would be effectually deprived of all superabundant electricity before it could reach the city. These rods would not only form mediums for equalizing the electricity in the case of overcharged clouds, when the earth is in the condition of a negative to the positive cloud, but in the reverse condition, when the earth is positive and the atmosphere or cloud, negative. They would form conductors equally as well one way as the other. I know of no outlay that a city or village could make, that would be more judicious than this; and the farmer, certainly, cannot safely dispense with it. But the position of the rods is not the only point of importance. The manner of their arrangement is essentially *the* point of greatest moment, and we will now proceed to discuss that.

A lightning rod,—its material and manner of construction or erection, is the simplest thing in nature or me-

chanics. Let us develop the principle upon which it acts. The earth is a large body, always charged with electricity. Some have called it a generating battery. The atmospere, and its vapors or clouds, is also a large body of matter always charged with electricity. But, owing to their different densities and compositions, these two bodies are always in different states of electrical condition. Sometimes the earth is more highly charged than the atmosphere; but this is rare. Very often the atmosphere is more highly charged than the earth. Whenever either of these relations exists, there must necessarily be a non-conducting medium between the earth and the atmosphere, or at least between the clouds and the earth, in the form of a stratum of nearly perfect anhydrous or dry atmosphere. Now, to equalise the electricity of the earth and the atmosphere, we have only to form a medium, through or over which the surplus electricity of the one may pass to the other. Doctor Franklin discovered how this might be effected. He raised a simple kite, armed with metalic points, and fastened to the earth by a wire. This brought the lightning from the clouds. This disarmed the clouds of their lightning. The metal of the kite attracted the electricity of the cloud, the sharp points divided its current, so that it passed down the wire harmlessly. This was the first lightning rod, and illustrates the principle upon which it acts, viz: a continuous metalic medium from the earth to the cloud, or near it Now, a perfect lightning rod must, therefore, be connected with the earth *perfectly*, and ascend as near as may be to the cloud, with *a perfectly sharp point*. A perfect connection with the earth can be effected by sinking the lower end of the rod to a depth that will ensure perfect and perpetual moisture. In some situations ten or fifteen feet deep will be required, in others four or five will be sufficient, owing to the different constituents of the earth at the place. It would never be safe to allow the lower end of a rod to rest in a sand bed; that must be passed through, though an hundred feet were penetrated. When a situation of permanent and perpetual moisture is obtained, that is the depth to sink the lower end. And even then, a few feet square of copper sheeting should be soldered to the end of the rod. Some require a deposite of pulverised charcoal to be placed at the bottom, in which the end of the rod is to rest. I would recommend, if charcoal be used at all, which I do not consider necessary, that it be mixed intimately with the earth at the bottom. It will serve to retain moisture in very dry seasons. The rod must be a single continuous rod, of round iron, three-eights to half an inch diameter. It must be so long that it will reach from its deep insertion in the earth to the highest point above the house at which it can be sustained. It should be carried up within six inches, not less than four inches, of the house, and must be supported by some non-conducting substance in the course of its ascent, such as horn or glass. It should not be placed near nails or spikes, that is, no nails or spikes should be in the house directly behind the rod. Its upper end must be brought to a *perfectly sharp point*. This is of the utmost importance, because the sharper the point the more easily will the fluid be divided by it. In this connection it must be borne in mind that it is the division of the current by the sharp point that prevents the shock; and that it is the presentation of an obtuse or blunt surface that produces it. Bear in mind, also, that it is the interruption of the current in all cases of electricity, that causes shocks. The sharp point avoids this, and hence, as has been shown in previous remarks, the heaviest charged Leyden jar, may be discharged by an infant with the point of a pin. And the sharper the point, the more perfect will be the discharge insensibly. To ensure this the point should be composed of *platinum*, on which metal the atmosphere has no effect. A cap of thin sheet platinum an inch or two long, drawn to a point, and soldered upon the iron rod, is sufficient.

The old fashioned method of connecting several rods by a kind of hook and eye connection, is all wrong. Rust may and certainly will interfere to break the connection,—for it must be borne in mind that the oxyde of any metal (rust,) is a non-conductor of electricity. The whole rod must be made of one continuous rod of iron. This may be effected by perfectly welding the several pieces together, till you have the length required. In its connections for support to the house nothing but perfect non-conducting materials should be used. Clamps of wood with a section of horn or a ring of glass for the rod to pass through, are good contrivances. The higher the point of the rod is elevated above the highest part of the house, the more protection will be afforded. From casual shafts of lightning it is calculated that an elevation of the point, four feet above the highest part of the house, will protect the house to the distance of eight feet each way, and that an elevation of eight feet will protect it to a distance of sixteen feet each way. The rule should be however to elevate the point of the rod as high as it can be supported against the wind, for the higher it is the more protection it will afford. Let me once more caution against jointed rods and placing the rod opposite nails or spikes or any metalic substance, as these may attract the current from the rod. I would also caution against branch rods; that is, several rods above leading to a single rod below; and also against horizontal rods, running a distance along the roof or top of a house or tower, to the perpendicular stem;—its nature is to descend to the earth, and the horizontal rod affords an unnatural medium; they may pass over a nail or spike which would be very likely to attract the current and discharge it in the house. The rod may be painted black or left without paint at the option of the builder. It makes no difference.

A word as to the nature of electricity. Many if not most people suppose that lightning is *fire*, of course that it is hot. This is not so; it is cold, or of the temperature of the surrounding atmosphere. But it is matter, commonly called a fluid, and by its rapid passage through the air produces the appearance of fire *in the atmosphere*, by its friction, and in passing over wood or metal, ignites the one and melts or fuses the other by its friction merely. Franklin did not draw fire from heaven, as he is generally credited with having done, but he drew down a current of electricity, in a cool state, and did it so coolly that he did not even burn his fingers with it. How often do we see a green tree that has been struck by lightning, one side of it exhibiting the track of the fluid shivered into splinters. A dry tree is often set on fire by the friction. A barn is also set on fire by the friction; and nails and other metalic substances are fused; but still the fluid itself is cold. G. B. Smith. *Baltimore, Dec.* 1851.

Dairy Business on the Western Prairies.

Eds. Cultivator—Whilst canvassing the fertile plains of Illinois and Iowa, in the pursuit of agricultural information, no branch of farming received greater attention than the management of the dairy. Some very unexpected developments were strongly presented to notice, all of which were highly favorable to the profitable prosecution of the dairy business on the prairies; and for the benefit of the patrons of the Cultivator, a plain practical digest of the subject will be prepared for this and future numbers, in the hope that it will be the means of attracting public attention to a great interest, which has been comparatively overlooked by those who patronise the agricultural literature of the Union.

In the principal cheese districts of New-York and Ohio, the value of freehold property has been for the last fifteen years, gradually on the increase, until it has at last reached a point beyond which it cannot advance unless the products of the dairy obtain a corresponding increased value; which result will scarcely happen so long as an abundance of cheap and fertile western lands are in the market. The value of land adapted for the dairy business, on the upper branches of the Mohawk, may be ra-

ted at $40 per acre; in Western New-York at $25 to $35, and on the Western Reserve, Ohio, at $20 per acre. The wholesale value of cheese compares very nearly in value at those several points, with the difference in the value of the land, which is occasioned mainly from the difference in the quality of the article, and not through local influences or demand. The best cheese in the Union is manufactured in Herkimer and the adjoining counties; that which rates next in quality is produced in Western New-York, bordering those streams that flow into Lake Erie; and the next is manufactured in the north-eastern counties of Ohio. Celebrated brands in the two latter dairy regions, will favorably compare with the finest specimens produced in Herkimer; but in the main, the position here taken in regard to the relative comparative quality of the products of those districts, hold strictly good. We have on former occasions taken much pains to investigate the causes which produced the vast difference in quality of cheese and butter, in different districts; and although soil, character of herbage, and water for stock have much to do in the production of a good or bad quality of dairy produce, yet the management of the business itself, in nine cases out of ten, stamps upon the character of the article, either its bad or good qualities.

So far as the natural adaptation of the western prairies are concerned, it is safe to conclude that a superior article of cheese and butter could be produced. which would in every particular compare with the most celebrated dairy products of the Union. Occasional instances may be met with in travelling through Illinois and Iowa, where the articles of butter and cheese are decidedly superior in quality, but these are exceptions to the general rule, and indeed, it rarely happens that a traveller can meet with a sample of either at the public hotels and boarding houses, that would pass inspection in any of the leading markets in the country. It is idle to expect that the present population of the west will do much towards establishing a high character for the dairy; and to our mind, the best chance to effect that object, would be to fairly bring the claims of the country, for the business, before the attention of eastern dairymen. Much pains will be taken to effect that object in future numbers of the CULTIVATOR, so that the readers may correctly judge of the adaptation of a prairie country for the profitable prosecution of the dairy business.

There are many features connected with this important subject, that should be known by all who may have any desire to transfer their operations from high priced lands to those of a nominal value, and without fully enlarging upon the details at this time, a synopsis merely, will be given, and an early opportunity will be embraced for the more full development of the matter.

Prairie grass will produce as good a quality of milk and cream, as the cultivated grasses, though not quite so abundant. Cows are exceedingly partial to it, so much so that they prefer it to all other description of pasturage, and for at least four months in the year it is quite as reliable as either timothy or clover. Cows, as well as all other description of horned cattle, and horses, may be tolerably well wintered on prairie hay, at a merely nominal cost; but it is obvious that the main cause of the deficiency of milk in summer, may be attributed to the almost exclusive use of this description of winter provender, and the absence of esculent food; and not to the deficiency of nutritive properties in prairie grass for summer pasturage. Summer ranges for cattle, for a very long period to come, will be so abundant, that the stock will not have to travel to an inconvenient distance from the farm buildings, if they be judiciously located. At the head of all the streams, both in Illinois and Iowa, the prairie and timbered land are about equally distributed, and neither, in those regions are found in large bodies lying contiguously together. The country at those points presents a beautiful and undulating appearance, so equally diversified in hill and vale, with an abundance of never failing springs, and comparatively no swamps or waste lands, that at no distant day it must become occupied by an industrious and intelligent class of eastern farmers, who will introduce not only a superior system of dairying, but will also engraft upon western agriculture the most approved systems of management included within the entire scope of a mixed system of husbandry. The price of butter and cheese is fully 30 per cent higher in the western markets than in the eastern, and can be produced at one half the cost. With these, and other powerful reasons, we shall at some future occasion bring this important subject more prominently before the American public.

The Canadian or Wild Goose.

This interesting bird, though easily domesticated to such a degree that it will breed in its captive state, yet always, or at least for many generations, possesses something of the migrating instinct inherent in the species.

They are frequently restless, and disposed to fly at those seasons when the wild geese make their semi-annual journeys. They call to their brethren which happen to pass within sight or hearing; and if the tame ones are disabled from flight, (as is done by amputating one wing at the outer joint,) the wild ones not unfrequently alight to reconnoitre. If a wild flock is bewildered by having lost their leader, as is sometimes the case, they have been known to be so attracted by domesticated ones of the same species, that they have been easily shot, or even taken alive. Col. JAQUES, who keeps this bird in his collection, near Boston, states that flocks of wild geese have several times alighted near his poultry-yard, and although near a highway which is constantly traveled, they have sometimes remained for a whole day. no molestation of them being permitted.

List of Varieties of Apples.

Information is asked by a correspondent relative to the best varieties of the apple for an orchard. Those most highly esteemed throughout the country, so far as tried, are the following:—*For summer fruit*—Early Harvest, Red Astrachan, Sine Qua Non, Sops of Wine, Benoni, Summer Sweet Paradise, American Summer Pearmain, Sweet Bough, and, when highly or richly cultivated, Williams' Favorite. *Autumn fruit*—Autumn Strawberry, Gravenstein, Porter, Lowell, Dyer, Famense, Hubbardston Nonesuch, Rambo, Belmont, and Fall Pippin, the four last keeping at the north through a large part of winter. *Winter varieties*—Rhode Island Greening and Baldwin, for profuse bearing; Swaar and Esopus Spitzenburgh, for rich or high flavor; Red Canada and Northern Spy, for agreeable pleasant quality late in spring; English and Roxbury Russets for even surface and long keeping; Newtown Pippin, for high quality and high price, when subjected to very rich culture; and Ladies Sweet, Tallman Sweet, Broadwell, Danvers, and Sweet Baldwin, for winter Sweet apples. Peck's Pleasant, a fine early winter variety, exceeds nearly every other in the uniform fairness of the fruit through all seasons. The Yellow Bellflower and Jonathan, the Vandevere and Westfield Seeknofurther, should not be omitted in a complete collection of good winter apples; and Rawle's Janet and Pryor's Red will be regarded as indispensable at the Southwest.

Education Necessary for the Farmer.

The opinion is very general that farmers need no more than a common school education—that a college or academical education, to them would be useless—nay some even aver that a college education, instead of being advantageous to a young farmer, would be highly detrimental, by engendering habits of laziness, and unfitting him for the laborious occupations of the farm. True, if the boy has not been taught to work, he will dread work when a man—hence work should also form an important part of his education, nor is there any necessity of the entire period of youth being spent in fitting for, and going through college, or that a degree should be obtained so soon. There is, in this country, too great haste to usher young men upon the stage of action, there being a striking difference in that respect between us and Europe. No matter if the young man is even thirty, before leaving college. If industrious and prudent, he will be better fitted to enjoy happiness and act his part on the farm, than a farmer of the same age brought up without any taste for reading. We assert that if any many needs a college education, it is the farmer. He needs it, not to make money and acquire what is termed a good living—that is enough to satisfy the physical wants of his nature, but he needs it to gratify the wants of his mind. There is no class whose physical wants are better supplied than the farmer: but the mind, that which alone renders our enjoyments superior to the brute creation—how little food, how little enjoyment is provided for it? Acre after acre is bought, and dollar upon dollar is put out at interest, but few or no books are bought or newspapers taken.

There are few farmers who would not consider it the height of extravagance and folly to buy a library of five hundred volumes—a telescope costing one hundred dollars, and a barometer or microscope. They would much prefer to have the cost of the above in money at interest—and why? Simply because their education unfits them to enjoy books or scientific instruments. There are few who will deny that the farmer with the library, telescope, barometer and miscroscope, and the knowledge necessary to appreciate and use them, has more of the elements of happiness at command, than an unlettered agriculturist who has thousands of dollars at interest. The former has materials for enjoyment at home—the latter has money at interest. I once knew a childless old farmer, with a large farm, and many thousand dollars at interest. He was fond of reading. He only took a county newspaper costing one dollar a year, and borrowed other newspapers. I once asked him to subscribe for a city paper at one dollar a year. He said he was much pleased with the paper, and he intended to take it, but he would wait another year, and perhaps congress would reduce the postage, and then he would subscribe for it. Poor man! (mentally) to save eight cents, the difference in postage, he deprived himself of the Evening Post one year, nor did he ever take it.

If we travel among farmers, we meet with few libraries, and little literary or scientific taste. Nothing has tended more to bring about this state of things than the impression that a college education is useless to the farmer—the man who above all others is best calculated to enjoy such an education—because he has most leisure which could be devoted to literature or science without the least detriment to his farming business—nay that would be benefitted with such an intelligent guide at the helm.

Thanks to our agricultural papers, the prejudice against a liberal education is rapidly wearing away, and men are becoming more and more convinced that a good classical and scientific education is highly advantageous to the farmer. S. B. Buckley. *West Dresden, Yates county, N. Y., Dec.* 1. 1851.

Wheat and Chess.

Eds. Cultivator—Without either the ability or inclination to discuss the chess question, permit me to state a couple of facts which took place under my observation. Some eight or ten years since, my father purchased one of Gilbert's fanning mills, which were then considered the best in this section. Previous to that time, we were much troubled with chess; but after using the new mill two or three years, the chess had pretty much disappeared. A little previous to the last harvest, as I was walking near one of our wheat fields, my attention was attracted by a very large stool of chess, growing in the edge of the margin of the field After pulling it up and satisfying myself that it formed a single stool, I counted the stalks, and found it contained one hundred and five. Allowing twenty grains to the stalk—and I think this a moderate calculation—and we have more than two thousand fold. From these two facts, I drew as many conclusions. The first is, that a good fanning-mill is a capital anti-transmutation machine; and second, that chess, from its immense power of reproduction, requires pretty close watching. J. M. *Throopsville*, 1851.

Annual Meeting of the N. Y. State Ag. Society.

The Society convened at the Assembly Chamber, at 12 o'clock on the 21st—JOHN DELAFIELD, Esq., in the Chair; B. P. JOHNSON, Secretary.

After the usual opportunity for the admission of Members, Mr. JOHNSON read the annual report of the Executive Committee, enumerating the results of their labors for the past year, with such suggestions for the future, as were dictated by the experience of the past. The report was accepted, and ordered printed.

Mr. TUCKER, the Treasurer, read his report, which showed the following results:

Balance in treasury, Jan., 1851,.....	$2,643 07
Receipts during the year, from all sources,.....	14,575 78
	$17,218 85
Payments during the year,.....	12,544 71
Balance at this date,.....	$4,674 14
Plate and Medals on hand,.....	512 25
	5,186 39
Funds invested,.....	$7,000 00
	$12,186 39

A committee of three from each Judicial District, was appointed by the members present from each district, to nominate officers for ensuing year, and to recommend the place for holding the next Fair. The committee was as follows:

First Judicial District—J. D. Develin, E. D. Morgan, Russell Smith.
Second—J. A. King, L. G. Morris, W. Kelly.
Third—G. Vail, A. Van Bergen, E P. Prentice.
Fourth—J. T. Blanchard. Le Roy Morey, E. W. Rogers.
Fifth—J. Butterfield, A. Z. McCarty, J. A. Sherman.
Sixth—H. S. Randall, J. B. Williams, W. Rathbun.
Seventh—C. Lee, R. Rome, J. W. Bissell.
Eighth—L. F. Allen, J. A. McElwaine, Levi Fish.

On the report of this committee, the following officers were elected for the ensuing year:

President—HENRY WAGER, of Oneida.

VICE-PRESIDENTS.

I. JAMES MONROE, of New-York
II. LEWIS G. MORRIS, Westchester.
III. ANTHONY VAN BERGEN, Greene.
IV. WINSLOW C. WATSON, Essex.
V. THEODORE S. FAXTON, Oneida.
VI. OLCUT C. CHAMBERLIN, Otsego.
VII. CHARLES LEE, Yates.
VIII. JAMES MCELWAINE, Wyoming.

Cor. Secretary—B. P. JOHNSON, Albany
Rec Secretary—ERASTUS CORNING, JR., Albany.
Treasurer—LUTHER TUCKER, Albany.

Members of the Executive Committee—J. T. BLANCHARD and J. A CORY, Saratoga; J. BUTTERFIELD, Oneida; J. B. BURNETT, Syracuse, and WM. KELLEY, Dutchess.

Wednesday Evening, Jan. 21.

Mr. DELAFIELD, the President, delivered an address on the subject of the World's Fair, and presented the medals, awarded by this Society to those who received premiums at the London Exhibition, as follows:

To Mr. A. E. Brown, representing the Adirondac Iron Company, a gold medal was presented for specimens of American steel.

To Messrs. Bell, of Westchester, and Gen. Harman of Monroe, were presented each a gold medal for specimens of wheat; and to Mr. W. Hotchkiss, of Niagara, a silver medal for similar specimens.

To B. B. Kirtland, of Greenbush, a beautiful silver goblet, for 34 specimens of Indian corn.

To Mr. Dix, of Oneida, a silver medal for specimens of flax.

To Mr. Person, of New-York, for the piano exhibited, as a rare achievement in the musical art, a gold medal.

To Mr. Palmer, a gold medal, for an artificial limb.

To Robert Livingston Pell, a silver medal, for specimens of the American forest, of which honorable mention was made.

To Le Roy and Blodgett, a gold medal, for a sewing machine.

To Messrs. Allen & Co., of New-York, a silver medal, for the exhibition of tools.

To Messrs. Prouty & Mears, gold medal, for a plow.

To Mr. McCormick, a gold medal, for his reaping machine.

To Dr. Willard and associates, of the Oswego Starch Factory, gold and silver medals of the Society, for the samples of starch and corn farina.

PROF NORTON was then announced and delivered an address, on the absolute dependance of Agriculture upon Science, for its progress. He cautioned farmers against the notion, that it is an easy thing to become a scientific Agriculturist, and argued that extreme caution was necessary in order that every step might be certain advance. He declared himself in favor of an Agricultural college, but advised to a small beginning. Let the essentials be first cared for—*teachers* and *students*—and the superstructures would follow in their turn. As a whole the address was well-timed and full of thought, calculated to rightly direct public sentiment.

Thursday Evening, Jan. 22.

The Society convened at the Assembly Chamber, at 7 o'clock, when the Secretary, Mr. Johnson, read the reports of the several committees, awarding premiums as follows:

Management of Farms.—1. E. S. Hayward, Brighton, silver cup, $50—2 B. B Kirtland, Greenbush, silver cup, $30—3. Albert G. Ford, Rockton, silver cup, $20.

Experiments in Draining.—1 John Johnston, Seneca co., silver cup, $30—2. T. G. Yeomans, Walworth, silver cup, $20.

Dairy Buildings.—Premiums of $25 each, were awarded to Moses Eames, Rutland, and Paris Barber, Homer, for plans of dairy buildings.

Butter.—1. Israel Denio, Rome, $15—2. Noah Hitchcock, Homer, $10—3. L. L. French, Warren, $5.

FIELD CROPS.

Winter Wheat—1. Samuel L. Thompson, Setauket, Suffolk county, 2 acres, 54½ bushels per acre, $20—2. E. M Bradly, East Bloomfield, Ontario county, 41½ bushels per acre, $15—3. James McCready, Plattsburgh, Clinton county, 2 acres, 43 bushels per acre, $5.

Spring Wheat—1. Chas. W. Eells, Westmoreland, Oneida, county, 2 acres, 40 bushels 50 lbs. per acre, $15.

Rye—E. W. Bushnell, Hillsdale, Columbia county, 2 acres, 40 bushels, 22 lbs per acre, $15

S. Foster, Hillsdale, Columbia county, 2 acres, 42 bushels per acre. No award.

Oats—1. Peter Crispel, Jr., Hurley, Ulster co., 2 acres, 72 bushels 20 qts per acre, $15—2 H. B. Bartlett, Paris, Oneida county, 2 acres, 72½ bushels per acre, $10—3. E. W. Bushnell, Hillsdale, Columbia co., 2 acres, 85 bushels 4 quarts per acre, $5—4 I. Foster, Hillsdale, Columbia co., 2 acres, 84½ bu. per acre; no sample furnished.

Indian Corn—E. M. Bradley, East Bloomfield; 5 55-100 acres, 93 bushels per acre, $20.

Flax—Benj. Aikens, Pittstown, $10.

Tobacco—Thos. A. Smith, Syracuse, $5.

Timothy Seed—1. Douw Van Vechten, $5—2. C. W. Eells, Westmoreland, $3

Buck Wheat—1. L. L. French, Warren, $10—2. D. Conrad, Brunswick, $8.

Peas—1. E. S. Salisbury, Ellisburgh, $10—2. L. L. French, Warren, $8—3. E. M. Bradley, E. Bloomfield, $5.

Beans—E. S. Salisbury, Ellisburgh, $10.

Barley—1. Benj. Enos, De Ruyter, $15—2. E. R. Dix, Vernon, $10—3. Wm. Davison, Hartwick, $5.

20 BUSHELS GRAIN—*Spring Wheat*—1. Geo. K. Eells, Kirtland, $8—D. Conrad, Brunswick, $5.

Barley—Wm. Davison, Hartwick, $5.

Indian Corn—1 B. B. Kirtland, $5—2. Adam Laborence, Bethlehem. $3.

Rye—D. Conrad, $5

Oats—J. McD. McIntyre, Albany, $5.

SEEDS—*Timothy*—C. W. Eells, Westmoreland, $5.

Messrs. Rapalje & Co., Rochester, had on exhibition several samples of Beans, Peas, &c., for which a silver medal was awarded. Messrs. Emery & Co., Albany, exhibited a great variety of samples of Peas, Beans and Garden Seeds, which were pronounced by good judges as being beautiful samples.

FAT CATTLE—*Best Fat Ox*—1. L. Turner, Geneseo, $15—2. B. McNeil, Schoharie, $10.

Best Fat Steer—B. McNeil, Schoharie, $15—2. Milton Knickerbocker, Schodack, $10.

Best Fat Cow—W. A. Mills, Geneseo, $10—2. W. A. Mills, $5.

Best Fat Heifer—D. S. Baker, W. Bloomfield, $10—2. W. A Mills, Geneseo, $5.

FAT SHEEP—*Long Wooled*—B. McNeil, Schoharie. $8.

Middle Wooled—1. J. McD. McIntyre, Albany, South Down, $8—2. D. S. Baker, W. Bloomfield. $5.

Cross Breed—1. B. McNeil, $8—2. D. S. Baker, $5.

Swine—C. Knapp, two heavy live hogs, Special, $8.

Special Premiums—M. L. Turner, Geneseo, ox, $8—B. McNeil, Schoharie, ox, $8—L. D. Ledyard, jr., Cazenovia, ox, $8—D. L. Baker, W. Bloomfield, heifer, $5—W. A. Mills, spayed heifer, $5.

DRESSED MEATS—*Beef*—1. Chas. Snowden, Albany, fatted by Saml. McGraw, Cortland, diploma—2. Jas. Battersby, Albany, fatted by Mr. McGraw, small silver medal.

Swine—over 300 lbs.—1. E. Gove, Watervliet, $5—2. H. O. Hara, Scipio, $3. Under 300 lbs.—1. Rich. Gregory, Fleming, $5—2. Mr. Davison, Hartwick. $3.

Mutton—Long Wooled—1. P. Downy, $5. Short Wooled—1 and 2. Chas. Snowden. $5 and $3. Cross Breed—1. P. Downy, $5.

Turkies—1. B. B. Kirtland, Greenbush, $2—2. W. H. Richardson, Albany. $1.

Geese—Saml. R. Mott, Mechanicsville, $2

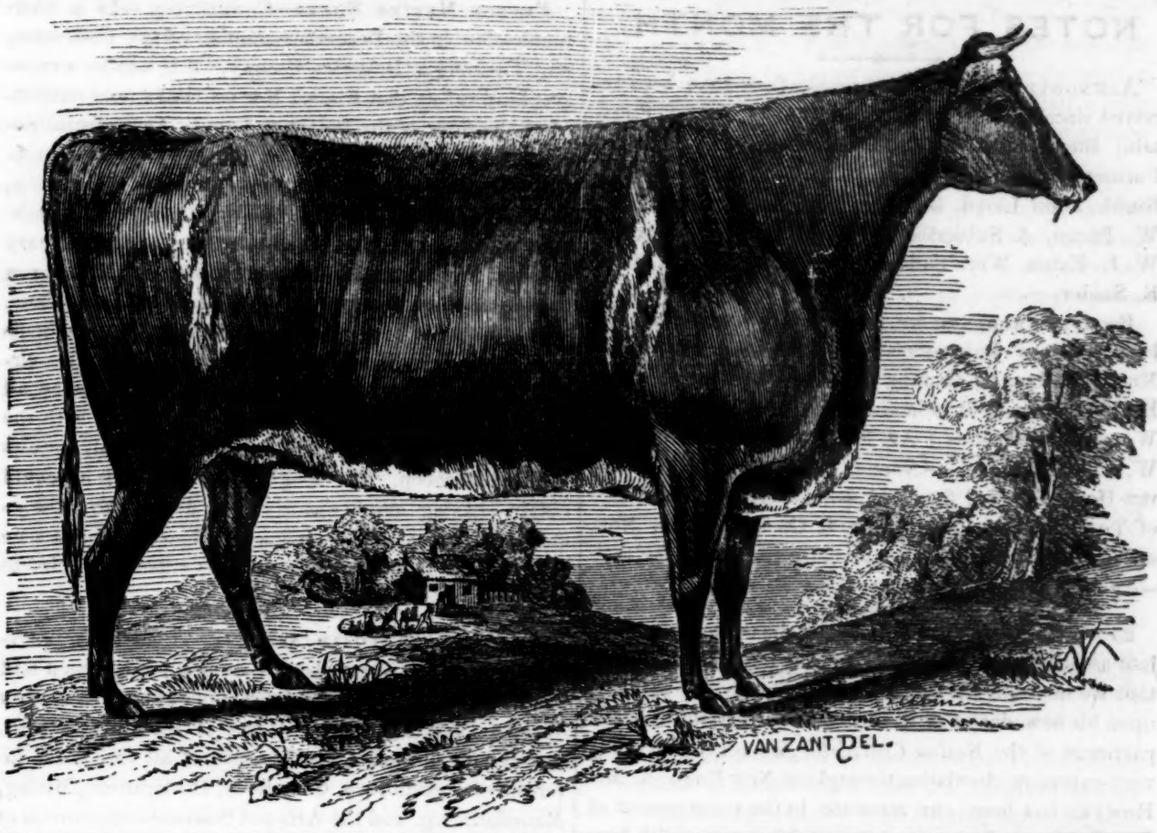
Ducks—W. H. Richardson, Albany, $2.

The Premiums on Fruits we are compelled to omit for want of room. The exhibition was unusually fine. A gold medal was awarded to Mr. TOWNSEND GLOVER of Fishkill, for models of Fruit and Insects. These were done in plaster and colored to the life.

The President, Hon. J. DELAFIELD, on retiring from the chair, pronounced an elaborate address, in which he reviewed the early history of the State, alluded to the increased facilities for improvement in Agriculture, since it had been studied as a Science, and urged the duty and imperative necessity of establishing an Institution in which the principles of Agriculture should be taught. The production was throughout of a deep and practical nature, and deserves a careful perusal. At the close of his address, Mr. DELAFIELD introduced the President elect, HENRY WAGER, Esq., of Oneida, who briefly thanked the Society for the honor they had conferred upon him, and remarked that he was not a *talking* man, but that any drafts for *labor* the Society might make upon him, would be duly honored. The exercises of the Society were well attended, and a unanimity and earnestness of feeling, which argues well for the future prospects of the Society, seemed to prevail.

We have only room to add that the exhibition of fat stock, dressed meats, Grains, &c., although only an experiment, and the weather extremely unfavorable, exceeded what was anticipated, and was such as to warrant a more liberal scale of premiums for another year.

At a meeting of the Executive Committee on the 23d, it was resolved that the Fair for this year, be held at UTICA, on the 7th, 8th, 9th and 10th of September, if the requirements of the committee are complied with.



Mr. Vail's Imported Heifer "Yarm Lass."

EDS. CULTIVATOR—Allow me to hand you the pedigree of one of the two Short-horn heifers, which I ordered in July last, from Mr. BELL, the friend and tenant of the late THOMAS BATES, Esq., of Kirkleavington, Yorkshire, England, and of which there is in preparation a portrait for the February number of the Cultivator. The directions given to Mr. BELL were, to send me two two-year-old heifers in calf, possessing as much of the Duchess tribe blood as he had in his herd,—well knowing as I did, from a long previous correspondence with these gentlemen, that Mr. BELL's stock was derived from Mr. BATE's herd; and that Mr. BELL's cows were bred to the Duchess bulls of the former gentleman.

The two heifers was shipped from London on the 21st of August, on board the packet ship London, and arrived in New-York, 17th of September last. How well the order was executed, will be seen by the pedigree of the heifer whose portrait is here given. The heifers are both a favorite color, a dark red roan, possessing in a high degree, the characteristic of the Bates herd, as delineated in an article written by JOHN EWART, Esq., land surveyor, New-Castle-upon-Tyne, and published in the London "Farmer's Magazine," June 1st, 1850, after the sale. Mr. EWART remarks, speaking of this herd—"magnificent size, straight and broad backs, arched and well spread ribs, wide bosoms, snug shoulders, clean and light feet, small head, prominent and bright but placid eye, were the features of usefulness and beauty which distinguished this herd in the very highest degree; whilst the hide is sufficiently thick to indicate an excellent constitution, its elasticity, when felt between the fingers and thumb, and its floating under the hand upon the cellular texture beneath, together with the soft and furry texture of the coat, evinced in an extraordinary degree throughout the herd, excellent quality of flesh and a disposition to rapid taking on of fat."

Pedigree of the above heifer "Yarm Lass." Calved 8th Jan., 1849—got by the Duchess bull, 4th Duke of York (10167)—the dam of this bull is Duchess 51st, and this 4th Duke of York, was purchased at the late sale of Mr. Bates' herd by Earl Ducie at £210 sterling, about $932, and is spoken of in the same article above quoted from the "Farmer's Magazine," in the following language—"This animal, now the property of Earl Ducie, is the *beau ideal* of bovine excellence; his magnificent size, and perfection in every point of excellence, entitle him to consideration, as the brightest gem of the herd; and if not the very best bull in existence, he certainly cannot be surpassed." The editor of the "Magazine," in an appended note, remarks—"As a proof of this, and what may be expected from his produce, we beg to observe, that the only three calves got by him, realised the sum of £279 1s., sterling," being equal to $561 each. (It may be well here to state that "Yarm Lass," is now in calf by the Duchess bull 5th Duke of York, and that he is an own brother to the 4th Duke of York above alluded to, and her time of calving about the middle of the present January.) The dam of "Yarm Lass," is Dinah 2nd, got by 4th Duke of Norththumberland (3649)—grand dam Dinah, by 2d Earl of Darlington (1945) also bred by Mr. Bates—great grand dam Red Thompson, bought of Mr. Bates. By this pedigree it will be seen that the present product of "Yarm Lass" will have three crosses of the Duchess bulls, which will make it ⅞ths Duchess bull blood.

It may not be uninteresting to such of your readers as take an interest in breeding stock, to show how long it may take to breed up a herd of females of a particular family of stock. I may therefore be allowed to remark, that my first importation from Mr Bates, was in 1840, when I received bull Duke of Wellington and heifer Duchess. Since then I have had from him and Mr. Bell, at different times (including the two recently imported,) five females, and all the females from them I have retained in my herd except two, having now in my herd of this family eight head in all. All of these are in breeding condition, except one. It has been my aim to make my herd to consist eventually, principally of this strain of blood.

The young bulls bred from these cows, I have disposed of, with the the exception of such as I needed for my herd, and I am gratified to learn from their owners that they have done much good where they have gone. Among those sold was "Halton," when a calf not over a month old, to the Hon. ADAM FURGUSSON, and his friend the late Mr. WETTENHALL, of Upper Canada, for $ 00. This bull, now over four years old, Mr. Furgusson used to his herd three years, and for the reason that he could not breed him to his own heifers, he brought him to our state show at Rochester last Sept., to exhibit as *foreign stock*, and for sale. This bull's appearance then, you are aware, attracted much admiration; he was awarded the 1st premium in the class of foreign stock, and was sold shortly after his appearance on the ground at $300, to Mr. S. P. CHAPMAN of Madison county. In a letter I received from the Hon. ADAM FURGUSSON, dated Nov. 12, 1851, in speaking of the bull Halton, he remarks—"He has made a most important change on my herd for the better. I am truly happy to find you are still importing. I must have another bull calf, and put myself in your hands to provide me."

My herd now consists of about thirty head, young and old. I beg you to excuse the liberty I have taken in this lengthy communication, and I hope it may be of some interest to some of your numerous readers. Truly and respectfully yours, &c., GEO. VAIL. *Troy, Jan 8th*, 1852.

CLINTON COUNTY AG. SOCIETY.—The Annual Meeting of this County Agricultural Society was held at Plattsburgh, on the 6th ult. The following is a list of officers for the ensuing year.

President—Jona. Battey, Keeseville.
Vice-Presidents—A. J. Moses, Champlain,
Peter Keese, Ausable,
R O. Barber, Beekmantown,
Saml. Chatterton, do
S H. Moore, Peru,
Andrew Dunning, Chazy
Oliver K. Lapham, Peru,
F. T. Miller, Plattsburgh,
S. M Taylor, Schuyler Falls,
Miner Martin, Plattsburgh.
Secretary—Anderson Keese, Keeseville.
Treasurer—Willets Keese, Peru.

NOTES FOR THE MONTH.

ACKNOWLEDGMENTS.—Communications have been received since our last, from John Waters, James Fountain, Buckeye, C. E. Goodrich, Wm. McC., An old Farmer, Hoosier, A. Mable, H. R. L., Prof. Norton, S. Smith, John Lloyd, B., Geo. Vail, S. Edwards Todd, W. Bacon, A Subscriber, Geo. Mansfield, L. Durand, W. L. Eaton, Wm. Bailey, Ra-ab Shagy, V. A., Geo. E. Snider.

BOOKS, PAMPHLETS, &c., have been received as follows: EVANS' Dairyman's Manual.——An account of Mr. J. J. MECHI'S farming operations at Tiptree Hall, England, from B. P. JOHNSON, Esq.——Transactions of Worcester Co. (Mass.) Ag. Society for 1851, from JOHN W. LINCOLN, Esq.——Annual Reports of the New Haven Hort. Society, for 1851.——Descriptive Catalogue of THORP, SMITH, HANCHETT, & Co.'s Syracuse Nurseries.——Patent Office Report on Agriculture, for 1850-51, from Hon. T. EWBANK, Com. Patents.

☞ We have delayed a notice of the retirement of our late associate, Mr. HOWARD, from the Cultivator, in order that we might at the same time announce his entrance upon his new duties as Editor of the Agricultural Department of the *Boston Cultivator*, a weekly journal of very extensive circulation throughout New England. Mr. HOWARD has been our associate in the management of The Cultivator for many years; and in parting with him, as we do with sincere regret, we take pleasure in congratulating our New-England brethren of the agricultural press on the acquisition to their corps of so valuable a member,—one so worthy of their regard and confidence. We may also congratulate the readers of the Boston Cultivator on his accession to the editorial chair of that paper, for we feel well assured that no one could be found whose sound views and thorough knowledge better qualify him for the place.

UNIVERSITY OF ALBANY.—This institution is now fairly in operation. The opening lecture of the AGRICULTUAL COURSE, was delivered on Wednesday evening, Jan. 14th, to a large and attentive audience, by Prof. NORTON. A large number of the members of the legislature, and citizens of the city, were in attendance, and the sympathy manifested in the purpose of the University, was highly gratifying to the friends and projectors of the Institution. Several of the Senatorial Districts have already furnished their quota of students, and the prospects are fair for a large and respectable class. PROF. NORTON made a brief exposition of the general plan of the University, in the course of which he stated that at no time before, in this country, had so full a course of popular lectures on practical science been accessible to the public. The Law Department is succeeding admirably.

☞ The inquiry of our friend at St. Hilaire, C. E., on the manufacture of maple sugar, we have sent to Mr. HALL of Shelburne, Vt., who we hope will furnish the information desired.

LEAD PIPE.—J. L. M. Lead pipe is worth from 5½ to 6½ cents per pound. The average of pipe of half inch calibre, weighs about three pounds to the yard.

FRENCH MERINO SHEEP—CORRECTION.—In a communication in the December number of the Cultivator, on "Farming in Delaware County," it is said by a typographical error, that French Merino lambs were exhibited at the show of the Delaware County Agricultural Society, from the flock of "F. M'Intosh" of Otsego county. The name should have been printed F. M. ROTCH, of Morris, Otsego county. We greatly regret the mistake, which should have been corrected in our January number, has it been ascertained in season. Mr. ROTCH has imported on his own account, and as agent for others, about 130 head of French Merino sheep. The animals were selected by himself, under the most favorable circumstances. He spent much time in France; visited all the celebrated flocks, and thoroughly discussed with the owners and shepherds, in their own tongue, all matters relating to sheep. He bought the best sheep he could obtain—having ample means at his disposal to do so,—and we have learned from good judges who have seen those he sent over, that they are very superior specimens of that noted stock.

THE WESTERN WORLD INSTITUTE.—Plans for improvement are on foot everywhere. A circular has been sent us from San Francisco, giving notice of a WESTERN WORLD INSTITUTE, whose object is the advancement, throughout the entire Pacific coast, of all the great interests of Agriculture, Commerce, Horticulture, Mining, Manufacturing, and the Arts and Sciences—improvement in the breed of Horses and Cattle, and the general development of all the varied resources of the State. A Museum and Conservatory are established in connection with the Institute, and addresses on the Natural Sciences are in contemplation. This magnificent project is in perfect keeping with the grand scale upon which Californians act, and will aid in bringing to light the exhaustless resources of the country.

HEAVY LITTER OF PIGS.—Mr. GEO. E. SNIDER, of St. John, N. B., writes us that Mr. HAYWARD, a farmer in Kings county, Parish of Sussex, has recently slaughtered nine pigs of extraordinary weight. They were all of one litter, and killed when eight months old. Their weight was as follows: 340 lbs.; 348 lbs.; 308 lbs.; 294 lbs.; 358 lbs.; 367 lbs.; 323 lbs.; 336 lbs.; 300 lbs. Total weight, 2,974 lbs. Average weight, 330¼ lbs. Eight of these pigs were sold for $208. Has this ever been beaten?

MINERAL THEORY OF MANURES.—Messrs. LAWES & GILBERT have published in the Journal of the Royal Agricultural Society, the results of many experiments, made by them in the course of many years, to ascertain the correctness of the idea advanced by Liebig, that it is only necessary to apply the ashes of plants or mineral substances, for the support of crops. They took plots of ground of equal quality, containing equal superfices, and applied different substances to the same crop. In one instance, ground which had no manure, produced 16 bushels of wheat to the acre; 14 tons of yard manure produced 22 bushels; the *ashes* of 14 tons of yard manure, 16 bushels; mean produce of nine plots supplied with artificial mineral manures, 16 bushels 3¾ pecks; on other plots, the addition of 65 pounds sulphate of ammonia,

(which Liebig held was "unnecessary,") gave an average of 21 bushels. The increase by the use of the mineral manures recommended by Liebig, was therefore, less than two bushels per acre, and the increase by ashes of manure, nothing.

Salt Hay.—The saline herbage of marshes near the sea, is valuable for feeding stock, especially so when fed in connection with *fresh* hay. It is most valuable to mix with hay which grows on bogs or wet lands. The salt hay imparts a relish to the other, and cattle thrive well on the mixture. It is best to mix the salt and fresh together in the mow or stack—putting them in alternate layers. If the salt hay is not more than half made, it answers full as well for this purpose.

Mowing Machine.—A correspondent at Newport, R. I., says—"a good mowing machine is much wanted here. Our fields are smooth, and pretty free from stones, and several, I think, would purchase such machines, if they would do the work properly, and could be furnished at a reasonable price." If any of our readers have used Ketchum's, or any other mower, we should be glad to receive their opinions as to its usefulness.

An Address before the Cortland Co. Ag. Society, by E. Marks, affords one of many evidences, that public sentiment is becoming more universally alive to the necessity of educating mind to think and judge for itself. We wish the truths presented so clearly and impressively in this address—that intelligence is the basis of our boasted freedom and power—that worth should form our estimate of character—that in a high standard of individual attainment is our country's brightest hope, might be echoed and re-echoed till every mind had caught something of their spirit, and learned to act wisely under their influence.

High Manuring.—The editor of the Michigan Farmer, in his foreign correspondence, states that Robert Craig, a very successful cultivator near Glasgow, applies manure at the rate of *one hundred dollars per acre!*—and finds it profitable. Although he makes much on his excellent and fertile farm, he draws large additional quantities 5 miles after paying over a dollar a load for it. It costs him over two and a half dollars per ton when applied. He gives forty tons to each acre. This keeps the soil in fine condition for several years, or till his five-year rotation is completed.

Lard Oil.—The editor of the Prairie Farmer, in reply to the condemnation of lard oil for lamps by the Patent Office Report, says, "We have used lard oil for eight years steadily, both in the office and in the house, and would by no means exchange it for any material for light with which we are acquainted. We have used it in different sorts of lamps, solar included, and find it everywhere and in every way superior. Its single defect is that in the *coldest weather* in the morning it is too easily affected with cold, requiring the use of a candle till the room is somewhat warmed."

Cost of the Corn-crop in the West.—The Prairie Farmer says that he has made inquiry of several corn raisers in middle Illinois, of the absolute cost of this grain per bushel in the crib. There was very little difference in their estimates, which ranged from *four to six cents!* The soil is of such a nature as to be plowed with the greatest ease, no hoeing is needed, all the cultivating being done by horses, the rows being from half a mile to two miles in length, and the husking of the huge ears being done from the standing stalks in this field.

Wire Worms.—According to a statement in the Prairie Farmer, salt is not agreeable to this larva. Land infested by thousands was sown in the fall with refuse salt at the rate of three and a half bushels per acre. The next summer very few were seen, and afterwards all gradually disappeared. Worth trying, at least, although the proportion of salt when dissolved in the soil would be only about one fifty-thousandth part.

Washing Spring Wheat.—A correspondent of the Genesee Farmer, pursues the following method of freeing wheat for sowing of oats and other seeds:—He puts three pecks of wheat in a wash-tub, fills it with water, and after stirring removes the oats and such other seeds as rise to the surface. The oats that will not float are removed by stirring the whole round rapidly by means of a paddle in a circular motion, which throws the oats towards the middle into a heap, when they are removed, and the process is repeated till the whole is clean.

Dignity and Disgrace of Labor.—Dr. Tuthill shows the dignity of useful labor, and the disgrace of that which is merely fashionable, in his address before the Suffolk county Agricultural Society, as follows:—"If a stout vigorous citizen has a load of wood lying on the side-walk, he may as well hang himself as to be fool enough to saw it himself; yet if Paddy has pitched it in out of sight, we are not sure but he may saw on till doomsday, and no one esteem him less of a gentleman. He would no sooner be caught carrying a trunk the length of a block to an omnibus, than stealing a body from a grave-yard; yet he will boast among his friends of the enormous weight he carries in the gymnasium, having paid a fee of thirty dollars a year for the privilege!"

Liquid and Solid Manure.—Charlss Alexander, a careful and accurate farmer in Scotland, found that while 14 head of cattle would make six loads of solid manure, the liquid would saturate seven loads of loam, rendering it of equal value. He had repeated the experiment for ten years, and found the saturated earth fully equal to the best putrescent manure. How many dollars worth are thus lost annually by each of the million farmers of this country? And what is the aggregate loss in the whole country taken together?

Value of Guano.—At a meeting of the Maryland Agricultural Society, George W. Dobbin, the Secretary, in speaking of the great value of this powerful manure on old or worn-out fields, said that 300 lbs. per acre, on potatoes, was equal to a dressing of good stable manure—more than this made too great a growth of stalks. It succeeded well on wheat and clover, but not on oats.

Crows.—"An old Farmer," after alluding to the increase of crows in many places, and the great injury they do to fields of grain, poultry yards, and in the destruction of small birds, recommends that a law be passed offering a bounty of 25 cents each for their destruction.

FARM-HOUSE.—I wish to build me a farm-house, to cost from $800 to $1,000, and have not, as yet, seen any plan that exactly suited me; and should be gratified if some of your readers, who have built such a house, would furnish the plans for the Cultivator. C. L.

AUSTRALIAN WHEAT.—Will some one who has grown this wheat, inform me whether it is likely to be more productive and profitable than the Blue Stem or Soules Wheat—and if so, where it can be had. C. L.

MILL FOR GRINDING FEED.—P. N., Connelsville, Pa. The best mill for this purpose that we know of, is Sinclair's of Baltimore. It will grind four or five bushels per hour. It may be had in this city of Emery & Co., and we presume of dealers in agricultural implements in Philadelphia—price $35.

GOVERNOR HUNT, of New-York, in his recent message, has the following remarks on the establishment of an Agricultural Institution:—

"Much interest has been manifested for some years past in favor of creating an institution for the advancement of agricultural science and of knowledge in the mechanic arts. The views in favor of this measure expressed in my last annual communication, remain unchanged. My impressions are still favorable to the plan of combining in one college two distinct departments for instruction in agricultural and mechanical science; but many whose opinions are entitled to weight, contend that a separate establishment for each branch would be most advantageous to both. Before adopting any final action on the subject, the merits of the several systems of organization that have been proposed, should be maturely considered. I would respectfully recommend that a sufficient portion of the proceeds of the next sale of lands for taxes be appropriated to the erection of an institution which shall stand as a lasting memorial of our munificence, and contribute to the diffusion of intelligence among the producing classes, during all future time.

BUSINESS NOTICES.

Every Subscriber an Agent.

All our Subscribers, as well as all Postmasters, are especially invited to act as Agents for our publications, THE CULTIVATOR and THE HORTICULTURIST.

☞ Agents who compete for our Premiums, will aid us in keeping their accounts, if they will number their subscribers, 1, 2, 3, and upwards.

Remember the Terms to Clubs.

Seven Copies for $5 00—Fifteen Copies, and the Horticulturist, six months, to the Agent, for $10.00.

☞ In answer to several inquiries, we would state, that it is not required that all papers in a club should be sent to one post office We will address them to as many different offices as may be necessary.

Premiums to Agents of the Cultivator.

As an inducement to those disposed to act as Agents, the following *Premiums* will be paid in CASH, SILVER PLATE, or AGRICULTURAL BOOKS and IMPLEMENTS, to those who send us the largest list of subscribers for THE CULTIVATOR for 1852, previous to the *tenth of April next.*

1. To the one sending us the largest number. with the pay in advance, at the club price of sixty-seven cents each, the sum of FIFTY DOLLARS.
2. To the one sending us the next largest list, the sum of FORTY DOLLARS.
3. To the one sending us the next largest list, the sum of THIRTY-FIVE DOLLARS.
4. For the next largest list, the sum of THIRTY DOLLARS.
5. For the next largest list, the sum of TWENTY-FIVE DOLLARS.
6. For the next largest list, TWENTY DOLLARS.
7. For the next largest list, FIFTEEN DOLLARS.
8. For the next largest list, TEN DOLLARS.
9. For the next largest list, FIVE DOLLARS.
10. To all who send us Thirty Subscribers or over, and do not receive one of the above Prizes, a copy of THE HORTICULTURIST for one year.
11. To all who send us Fifteen Subscribers, and do not receive one of the above Premiums, THE HORTICULTURIST for six months.

Albany Prices Current.

ALBANY, Tuesday, Jan. 20, 1852.

FLOUR.—The market at this point, during the last four weeks, has been quiet, with an occasional exception of purchasers on speculation. The trade is confined to the city and a limited Eastern demand at $4.25a4.37½ for ordinary State, $4.37½a4.50 for good State and Indiana and Michigan, $4.50a4.62½ for Genesee, and $4.75a5.50 for fancies and extra. A sale of 1,000 bls. Oswego, was made last week at $4 25. Buckwheat flour is saleable from store at $2a2.06¼.

GRAIN.—We have no sales of wheat to report; holders have advanced their views, and prime samples of Genesee wheat are firmly held at $1.12½, with not much disposition to sell at that figure. Some sales of Barley have been made from store and to arrive, at prices ranging from 70a78c. for ordinary to good lots; in the street 65a78c. is paid. Oats in the street are now firm at 47c., and Rye 68c.

HOPS sell in retail lots at 30a33c. In New-York the market is firm at 27a35c. for Eastern and Western, with a good demand. The Shipping List, at New-York, estimates the new crop of Hops at 14,000 bales, with 1700 bales of old Hops on hand, and states the deficiency at about 5,000 bales.

PROVISIONS.—In cut and barreled meats, we have no sales of moment, at this market to report; a sale of 100 bls. mess pork, cut from Lake Hogs, was made yesterday at $14.50. The retail market may be quoted, mess pork at $15.50; prime $14; clear $16. Mess beef $9.50; prime $5.50; smoked beef 9c.: smoked hams 9½c.; hams in pickle 9c.; lard 9½c. Cheese 6½a7c. Butter 16a18c.

Dressed Hogs have sold readily on arrival, the price for several days past ranging from $6.50a6.75 for fair to prime lots; lots, still fed, are taken on the spot and to arrive at $5.62½a5.75. In the West the packing business is nearly closed, the number cut is less than last year, but the hogs are heavier; whether enough so to make up the deficiency and the stock of old Pork on the sea board, remains to be seen.

WOOL.—The market at this point is quiet; the demand, however, is good. At New-York, on the 17th inst., the Reporter quotes only one transaction in domestic; a sale of 12,000 fine fleece at 43c. cash. Other wools of same class are held at 45c. Quotations are nominally the same, but an abatement of 3c. per lb. from December prices would be submitted to effect sales. In foreign, there has been a small demand from dealers, but the general tone of the market is flat. Quotations unaltered. From the other markets there is nothing of interest.

SEEDS.—The New-York papers quote Clover in better request for export both to England and the Continent; 25 tcs. sold for Scotland on private terms. Timothy remains dull; mowed may be qoted $14a 18, and reaped $20a21, without sales. Of Flax, we notice sales of 100 tcs. cl. an, within a week, at $12.50; and 1500 bushels rough, in lots, $1.44a1.50, which for the latter is an advance.

To Virginia Farmers.

A PRACTICAL Farmer and Dairyman wishes to obtain a farm to manage at a given salary, or on shares, in some healthy locality in Virginia or in Maryland, for a few years, with a view to ultimate settlement after testing climate and soil. Good references given, if required. Address, CULTIVATOR OFFICE.
Feb. 1—1t.*

THE WORKING FARMER,

A MONTHLY Periodical devoted to Agriculture, Horticulture, Floraculture, Kitchen Gardening, Management of Hot-houses, Green-houses, et. al. Embracing Agricultural Chemistry, preparation of manures, &c., &c.

Edited by Professor JAMES J. MAPES, and published at 25 Cliff-street, New-York.

Terms per year, in advance,—single copies,..... $1 00
" " six copies, ... 5 00
" " twenty-five copies,. 20 00

Back volumes in covers, at subscription prices.
The Fourth Volume will commence March 1, 1852. Feb 1.

PERUVIAN GUANO

AND other Fertilizers. Several hundred tons of first quality of Peruvian Guano, constantly on hand for sale.
Also, BONE DUST. PLASTER OF PARIS and POUDRETTE.
A. B. ALLEN & CO., 189 and 191.
Water-st., New-York.
Jan. 1—tf.

Fine Fowls for Sale.

VERY handsome specimens of the Albany Dorking, Black Poland, and Silver Spangled Poland, are for sale by
Albany, Jan. 1, 1852—2t. E. E. PLATT

Eggs from Choice Fowls.

THE subscriber will have for sale, in the course of the following spring, eggs from fine specimens of fowls of the following varieties: Shanghae, (dark-colored and white,) Dorking, (spangled,) and Black Spanish. Also eggs from Aylesbury ducks—a variety highly prized by epicures, from the superior quality of their flesh.

Also for sale, several pair of Dorking and Shanghae fowls.

Greenbush, Feb. 1, 1852.—1t. WILLIAM H. KIRTLAND.

Farm For Sale.

THE subscriber will sell at private sale, the Farm in Westminster, Vt., of the late William Stickney, except what has been set off for the widow's dower, consisting of about thirty three acres of excellent meadow land, about forty acres of pasture adjoining, with about five acres of land on the Main street, having a small building thereon. Also about one hundred and sixty acres of pasturing and woodland, on Rocky Hill, southwardly from the above premises, and the reversion of the widow's dower in farm. This farm is so well known that a further description is deemed unnecessary. For terms apply to the subscriber, Chatham-st., Boston, or to Stephen Barker, in said Westminster. ISAAC STICKNEY,

Westminster, Vt., Feb. 1.—1t Administrator of Wm. Stickney.

Imported Suffolk, Essex and Middlesex Hogs.

THE subscriber has now on hand and for sale, some pure blooded Suffolk, Essex and Middlesex Swine, from the importation of the late william Stickney of Boston. All orders and selections entrusted to Isaac Stickney, administrator of the estate of William Stickney, will be promptly attended to, and selections made with great care.

ISAAC STICKNEY,

Corner of Chatham-st. and Chatham Row, Boston.

Boston, Feb. 1, 1852.—1t.

New and Fine Shrubs and Plants.

ELLWANGER & BARRY, Proprietors of the Mount Hope Nurseries, Rochester, N. Y., solicit the attention of those interested in Ornamental Plants, to their large stock of rare and beautiful Shrubs and Plants, among which are the following

HARDY SHRUBS.

Deutzia Scabra, or Garland Deutzia, a fine white flowering shrub.

Forsythia Viridissima.

Ribes Gordoni—Gordon's Currant—yellow and crimson; very fine.

Spiræa prunifolia, flore pleno. Small double white flowers in great profusion; fine dense habit.

Spiræa lanceolata, or Reevesi, one of the finest of the genus.

Spiræa Chamædrifolia, Niconderti, Lindleyana, Japonica, and twenty others.

Syringa (Phyladelphus,) *Pubescens, Zepherii, Cordata, Double, Columbiana* and others, all fine.

Lonicera Ledibourii, a fine Californian shrub.

Tamarix, Africana, Germanica, Gallica, and *Libanotica.*

Viburnum Lantanoides, a beautiful shrub.

Wiegela Rosea, the finest hardy shrub lately introduced from China. The above excellent things can be furnished in quantities at low prices

SELECT GREENHOUSE AND BEDDING PLANTS.

Fuchsias.—Our collection is one of the best in America. The most distinct and best varieties yet introduced, and quite rare—such as *Pearl of England. Fair Rosamond. Serratifolia, Serratifolia multiflora, Fulgens corymbiflora. Corymbiflora alba, Magnificent, President, President Porcher, Spectabilis*, &c., are propagated largely.

Verbenas.—A collection of 50 varieties, comprising everything fine introduced to this time.

Heliotropes.—Souvenir de Liege, Corymbosum, and some new varieties just received, to be announced hereafter.

Plumbago Larpenta.

Cupheas platycentra, Strigulosa and others; the first is one of the finest bedding plants.

Lantanas.—EWING: the fine new Cincinnati variety, rose and straw color. *Mutabilis Major*, and several others.

Bouvardias triphylla, and others.

Abutilons.

Salvias.—Splendens major, Oppositifolia, Azurea and others; superb plants for masses.

Fabiana imbricata.

Hydrangeas.—Hortensis, Japonica, Cordata, &c.

Buddlea Lindleyana.—A fine shrubby plant, with large clusters of purplish lilac flowers in the autumn.

Habrothamnus elegans.—A superb plant, half shrubby, with large clusters of showy crimson flowers; blooms equally well in the open ground in autumn, and in the house in winter.

Petunias.—A large collection, embracing all distinct and good sorts.

Lobelia fulgens insignis—flowers of dazzling brilliancy; new.

Lobelia fulgens alba; new.

Veronica Lindleyana.—A charming autumn flowering plant; long elegant spikes of pale, nearly white blossoms.

Veronica Andersoni.—The finest of all; new.

Tree Violets.—White and purple.

Chrysanthemums.—A fine collection of the novel and beautiful pompone, or dwarf varieties.

Dahlias.—A superb collection, including the English and French prize sorts of 1851, all at very low rates.

Cinerarias.—A fine collection of new and beautiful sorts, including *Magnificent, Atilla, David Copperfield, Wellington, Beauty of Newington, &c., &c.*

All the above articles furnished in large or small quantities, at low rates, and packed so as to go any distance with safety.

Priced Catalogues of Dahlias, &c., &c., ready first of March.

Rochester, Feb. 1—2t.

SYRACUSE NURSERIES,

Thorp, Smith, Hanchet & Co., Proprietors, Syracuse, N. Y.

AMONG the Fruit and Ornamental Trees, Shrubs, Vines, Roses, Bulbous Roots, Greenhouse Plants, &c., cultivated and for sale at this establishment, may be found, in quantity and quality, not surpassed in this country,

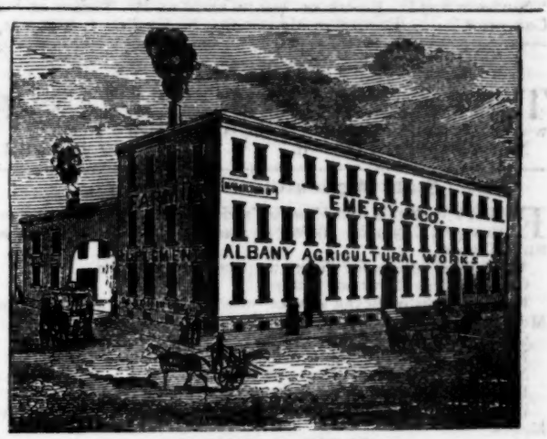
Standard and Dwarf Apple Trees.
Standard and Dwarf Pear Trees.
Standard and Dwarf Cherry Trees
Standard and Dwarf Peach Trees.

PLUMS, QUINCES, APRICOTS, and NECTARINES; all the best sorts of *Currants, Raspberries, Strawberries and Gooseberries;* EVERGREEN TREES, including Deodar, Lebanon, and Japan Cedars, at much less than the usual rates; Junipers, Spruces, Taxodiums, &c. PÆONIES, a splendid collection of Tree and Herbaceous. DAHLIAS, 150 selected sorts, embracing the best English and American, 25 to 50 cents for whole roots. PHLOXES, over 50 of the choicest kinds. ROSES, 6,000 plants of the finest varieties, with all the new acquisitions. BULBOUS ROOTS, received last fall from Holland, consisting of Double Tulips, Hyacinths, Lilies, Crocuses, &c. BEDDING OUT PLANTS of every description. BUCKTHORN two and three years old, very stout; all for sale, at wholesale or retail, as low as at any other establishment in America.

A new edition of our General Catalogue is now published, embracing, 1st. A full Descriptive Catalogue of Fruits. 2d. A Special Catalogue of Dahlias, Border Plants, &c., and 3d. An extensive Catalogue of Hothouse and Greenhouse Plants, Bedding out Plants, and Bulbous Roots; to which we refer for description and prices.

☞ As the postage on this Catalogue for 500 miles and under, is 4 cents; from 500 to 1500, 8 cents; from 1500 to 2500, 12 cents, &c., which we are compelled to prepay, we must require all applicants, besides paying their postage, to enclose *one letter stamp* for any distance under 500 miles, and *three* for any distance exceeding it.

Syracuse, Feb. 1, 1852—2t.



EMERY & CO.'S
New-York State Agricultural Society's
FIRST PREMIUM
RAILROAD HORSE POWER,
AND
OVERSHOT THRESHER AND SEPARATOR.

THE above Horse Powers have been awarded the highest Premiums at the Fairs of the New-York State Agricultural Society in 1850, and again in 1851; also, the highest Premium of the Michigan State Fair, at Detroit, Mich., in September, 1851, where a majority of the Committee owned and were using Wheelers' Powers on their farms, having purchased them previous to seeing our own; also a Gold Medal at the American Institute in 1851. It was also exhibited at the State Fairs of Ohio, Maryland, and Pennsylvania, and received the highest awards which could be given by the rules of their Societies. In every case, it has been in competition with all endless chain Powers of any note in this country—among which were Wheeler's Rack and Pinion. All of our Powers have the name, EMERY & CO., cast upon every link of the chain and hub of band-wheel. None others are genuine.

ALBANY AGRICULTURAL WORKS,
Hamilton, Liberty, and Union-streets.

The subscribers are the originators and sole proprietors of the above works, which embrace a very large collection of labor-saving Machinery, not excelled in this country for facilitating the manufacturing of Agricultural Machinery to any desired extent, and with uniform accuracy and despatch

WAREHOUSE AND SEED STORE,
369 and 371 Broadway.

Our Warerooms are among the most spacious in the city, and collection of articles on hand large and new—most of the Implements being of our own manufacture, and the Seeds grown for our own trade. For prices, particulars, etc., see Illustrated Catalogue, furnished gratis, by mail or otherwise. Feb. 1—1852.

THE Transactions of the New-York State Agricultural Society, vols. 1 to 9, for sale at the Office of "THE CULTIVATOR," price $1 per vol

Fruit Scions for 1852.

THE subscriber will furnish Scions for this season's grafting, of the celebrated fruits of Western New-York:

APPLES.

Northern Spy,	Ribstone Pippin,
Norton's Melon,	Summer Rose,
Wagener,	Rambo,
St. Lawrence,	Esopus Spitzenburgh,
Canada Red,	Yellow Bellflower,
Swaar,	Roxbury Russett,
Baldwin,	Early Harvest,
Pomme Grise,	Early Strawberry,
Seek-no-further,	Autumn Strawberry,
Hertfordshire Pearmain,	Early Joe,
Fameuse,	Fall Pippin,
Bourassa,	Holland Pippin,
Twenty Ounce Apple,	Rhode Island Greening,
Hawley, or Douse,	Tallman Sweeting,
Gravenstein,	Green Sweeting,
Bailey Sweeting,	Porter.

PEARS.

Virgalieu,	Bartlett,
Seckel,	Oswego Beurre,
Swan's Orange, or Onondaga.	Brown Beurre,
	Osband's Summer,

and most of the Foreign varieties.

Apple Scions $1.00 per hundred, and Pear Scions Three Shillings per dozen. They will be carefully packed and sent by Express or by Mail. A discount on apple scions will be made to nurserymen.

Early orders are requested, to insure a supply. Address me, (postpaid,) at Rochester, Monroe County, New-York.

JAMES H. WATTS.

N. B.—In all cases where it is possible, I will send samples of the "Northern Spy." Reference can be made to Mr. Tucker of "the Cultivator" Rochester, Monroe Co., N. Y., Feb. 1, 1852.—1t.

NOTICE.

THE undersigned has disposed of his interest in the "State Agricultural Warehouse," No. 25 Cliff street, to Mr. A. LONGETT, who will in future conduct the business on his own account.

New-York, Feb. 1, 1852—1t. GEO. H. BARR.

State Agricultural Warehouse.

EMERY'S, Kell's and Wheeler's Horse Powers and Thrasher's Hovey's, Clinton's, Tower's, Sinclair's and Botts' Straw and Stalk Cutters.

Vegetable Cutters, for slicing up potatoes, beets, &c.

Corn Shellers of various patterns.

Fanning mills of Bryan's make—this is considered one of the best Mills in use.

Clinton's, Bamborough's, and other makes.

Prouty & Mears' Premium Plows of all sizes.

Minor & Horton's and Eagle plows.

Harrows of Geddes, Triangle and Scotch patterns.

Paring Plow, a superior article, made under the direction of Prof. Mapes.

Subsoil Plows of Wier's pattern, which is half the draft of the old style.

Ox or Road Scrapers, Seed Sowers, Cultivators, &c.

Field and Garden Seeds.

Fertilizers, such as Guano, Bone Dust, Bone Coal, Plaster, Poudrette, Bone Manure and Sulphate of Soda. For sale by

A. LONGETT,

Feb. 1, 1852—1t. No. 25 Cliff Street, New-York.

Devon Bull for Sale.

THE subscribers offer for sale their thorough bred Devon Bull "Uncas," calved the 19th of March, 1851. Sire "Neguntiicook," grandsire "Prince Albert," (102 of English Herd book;)—Dam "Non-pareille," by "Lord Lynedock;" grandam a Quarterly cow. "Neguntiicook" won the first prize at the American Institute in 1850; and the first at the State show in 1851. "Nonpareille" won the first prize as a three year old heifer at Barnstable, England, in 1846; and the first at the State show in 1851. He may be seen at our place; or further particulars will be given to any one addressing,

W. P. & C. S. WAINWRIGHT,

Feb. 1—2t. Rhinebeck, Dutchess co., New-York.

Splendid Farm in Ohio for Sale.

WE have a splendid farm for sale, containing about 300 acres. It is situated about 2½ miles west of Columbus, and within 2½ miles of London, the county seat of Madison county. An excellent McAdamized road, from Columbus to Xenia, passes through it. The access to market, either east or south, is easy and quick. The railroad from Cincinnati to Cleveland, has a depot at London, 2½ miles from it.

About 125 acres of the land are cleared, and under good improvement. The balance is well timbered, and the whole is under fence. It is well watered, having springs or streams in abundance.

On it is a substantial brick dwelling house and two other comfortable tenements. The orchard contains about 200 apple, peach, and pear trees. The whole farm is well adapted for raising grain, or corn, and would make an admirable dairy or stock farm.

The proprietor has made arrangements in the west to go into another kind of business, and will sell the above farm on reasonable terms.

For terms apply at this office, or to

WOMBAUGH & WHEELER,

Feb 1—2t. Real Estate Agents, Columbus, O.

THE HORTICULTURIST,

AND

JOURNAL OF RURAL ART AND RURAL TASTE,

EDITED BY A. J. DOWNING, NEWBURGH,

Author of Landscape Gardening, Fruits and Fruit Trees of America, Cottage Residences, Country Houses, &c., &c.,

Is published monthly, at the office of The Cultivator, Albany, by LUTHER TUCKER, Proprietor.

THIS popular publication, which is gradually extending its influence throughout the country, and is becoming indispensible to the tasteful Gardener, the Fruit Culturist and the Floriculturist, will be continued as heretofore, under the Editorship of Mr. DOWNING, whose ability and taste in all matters of country life, are unequalled by any writer of the present day.

The extended and valuable correspondence of THE HORTICULTURIST, presents the experience of the most intelligent cultivators in America; and the instructive and agreeable articles from the pen of the Editor, make it equally sought after by even the general reader, interested in country life. To all persons alive to the improvement of their Gardens, Orchards, or Country Seats—to Scientific and practical Cultivators of the Soil—to Nurserymen and Commercial Gardeners, this Journal, giving the latest discoveries and improvements, experiments and acquisitions in Horticulture, and those branches of knowledge connected with it, will be found invaluable.

A NEW VOLUME (the 7th,) commences with the January number for 1852; and it will be the constant aim of the Editor and the Publisher, by every means in their power, to render it still more worthy, by every practicable improvement, of the liberal patronage it is receiving.

☞ All letters on business must be addressed to the Proprietor LUTHER TUCKER, Albany, N. Y., and Editorial correspondence to be addressed to the Editor, A. J. DOWNING, Esq, Newburgh, N. Y.

TERMS.—Each number contains 48 pages, embellished with a Frontispiece and numerous Illustrations, printed on the finest paper, and in the best manner. Price, $3 a year—Two copies for $5.

New Staminate Strawberry.

WALKER'S SEEDLING.

THIS new variety of the Strawberry is for sale and will be sent out, to applicants in the spring of 1852, price one dollar per dozen. Orders may be addressed to Samuel Walker, Roxbury, or to Mr. Azell Bowditch, at the Massachusetts Horticultural Seed Store, School Street, Boston.

The Fruit Committee of the Massachusetts Horticultural Society, report of the variety as follows:—'WALKER'S SEEDLING;" this strawberry has now been fruited three years; it is a dark colored berry, of good size, a very abundant bearer, of high flavor, very fine quality, and it will be, it is believed an acquisition. It is a staminate, worthy, as the committee think, of an extended cultivation. *Boston, June 28th*, 1851.

Fruit, Ornamental and Evergreen trees, shrubs, &c., for sale at the nurseries of SAMUEL WALKER,

Feb. 1—3t. Roxbury, Mass.

FARM SCHOOL.

THE Mount Airy Agricultural Institute, located at Germantown, Pa., will open for the summer term on the first Thursday of April next. For particulars address the Principal,

JNO WILKINSON,

Jan. 1, 1852—3t. Germantown, Pa.

Balsam Fir, Arbor Vitæ, and other Forest Trees.

HENRY LITTLE & CO., of BANGOR, Maine, will furnish any number of Evergreen and other Forest Trees, taken up with *earth on the roots*, with the greatest care, and sent to any part of the United States by Steamers or Railroad—and carefully packed in large boxes, at short notice, at the following prices, viz:

From 6 inches to 1 foot, at 1 cent, or $10,00 per 1000.

From 1 foot to 2 feet, at 1½ cents, or $15.00 per 1000.

The above prices refer more particularly to Balsam Fir and Arbor Vitæ Trees.

We charge what the boxes cost, but nothing for packing.

For two years past, the trees we have procured and sent to a distance, have lived generally, and have given good satisfaction. Evergreens will not live unless taken up with great care.

Bangor, Jan. 1, 1852—4t.

FOWLS AND EGGS.

THE great desire manifested in New-England for procuring good Poultry, has induced H. B. COFFIN, *Newton, Mass.*, to pay particular attention to breeding and importing first rate stock. All persons desirous of having the purest and best to breed from, may depend upon being faithfully served. Among many kinds of Fowls for sale by him, are the following, which he is very particular in breeding.

Shanghae—Forbes stock.

Imperial Chinese—Marsh stock.

Cochin China—Coffin do

White Shanghae do do

Black Shanghae do do

Golden Poland, or Spangled Hamburgh.

Dealers in Fowls or Eggs for hatching, supplied upon liberal terms. Orders addressed to *No. 5 Congress Square, Boston*, will be promptly executed.

Reference to Mr. J. VAN DUSEN, of Cincinnati, Ohio, who will take orders for Fowls, as advertised above.

Boston, Aug. 1, 1851—12t.

Improved Stock.

CATTLE, of the Durham, Devon, Hereford, Alderney, and Ayrshire breeds.

SHEEP, of the Native and French Merino, Saxony, South-Down, and Cotswold.

PIGS of the Lincoln, Suffolk, and Berkshire breeds.

From our long experience as breeders and dealers in the above kinds of stock, and our excellent situation for purchasing and shipping, we think we can do as good justice to orders, as any other house in the United States. A B. ALLEN & CO.,

Jan. 1, 1852—tf. 189 and 191 Water st., New-York.

United States Agricultural Warehouse and Seed Store.

THE subscribers solicit the attention of the public to the large and varied assortment of Agricultural and Horticultural Implements, Field, and Garden Seeds, which they have constantly on hand, and offer for sale at the lowest prices, and on the best terms. Persons in want of any articles in their line, would do well to call upon them before purchasing elsewhere. A descriptive Catalogue will be sent gratis upon application, post-paid.

N. B. Guano, Bone Dust, and other fertilizers.

JOHN MAYHER & CO.

Dec. 1—tf. No. 197 Water-St., New-York.

THE AMERICAN MUCK BOOK,

A complete Manual of Manures. Price $1.

C. M. SAXTON, agricultural book publisher, has just published—the American Muck Book—treating of the Nature, Properties, Sources, History and Operations of all the principal Fertilizers and Manures in common use, with specific directions for their preparation, preservation and application to the soil and to crops, as combined with the leading principles of practical and scientific Agriculture, drawn from authentic sources, actual experience, and personal observation. Illustrated with engravings. By

D. J. BROWNE.

Author of Sylva Americana, a Treatise on Forest Trees, American Poultry Yard, &c. C. M. SAXTON,

Agricultural Bookstore, 152 Fulton street, New-York.

The following is from Dr. C. T. Jackson, of Boston, the best Agricultural Chemist in the U. S.:—

[Copy.]

Boston, November 6th, 1851.

Dear Sir: I have the pleasure of acknowledging the receipt of a copy of the "American Muck Book," recently published by you, and edited by Mr. D. Jay Browne.

From an attentive examination of this book, I have come to the conclusion that it is one of the best works extant, on the principles of scientific agriculture, and the best compendium of our most recent knowledge of the nature of manures and their adaptation to particular soils and crops. It cannot be expected that a single volume could possibly contain the whole sum of chemical knowledge applicable to the science of chemistry; but on looking over the closely printed and compact tables of analyses, and the abundant formulas, which this publication contains, I could not fail to be surprised at the industry manifested in preparing it. I was also gratified to find it so well adapted to the American system of husbandry, and so practical in its character. Its copious and accurate index adds not a little to its value.

I shall certainly recommend it to my agricultural friends as a very useful book, and one necessary to every scientific farmer. I am, very respectfully, your ob't. servant,

CHARLES T. JACKSON, State Assayist, &c. &c.

To C. M. Saxton, Esq., New-York. Jan. 1, 1852.—3t

TO FARMERS.---POUDRETTE.

THE LODI MANUFACTURING COMPANY having enlarged their works, are prepared now to receive and fill orders for Poudrette with dispatch, and in all cases with a *freshly manufactured article*, at their usual prices, $1,50 per barrel for any quantity over six barrels. 3 barrels for $5.—$2 for a single barrel, delivered free of cartage on board of vessel or elsewhere, in the city of New-York.

The Company refer to their pamphlet (furnished gratis) for hundreds of certificates as to the efficacy, cheapness, and superiority in all respects of their Poudrette over any other known manure for raising a crop of corn—also to A. J. Downing, Esq., B. M. Watson, Esq., Hon. J. P. Cushing, J. M. Thorburn & Co., and many others as to excellency as a manure for flowers and trees, and the following from Hon. Daniel Webster, Secretary of State:

Washington, March 19, 1850.

"If I neglect the annual purchase of some of this article, my gardenerer is sure to remind me of it. He thinks it almost indispensable, within his garden fence; but there are uses, outside the garden, for which it is highly valuable, and cheaper, I think, than any other manure at your prices. A principal one, is the enrichment of lawns and plensure grounds, in grass, where the object is to produce a fresh and vigorous growth in the Spring. Our practice is to apply it, when we go to town in the Autumn, and we have never failed to see its effects in the Spring."

All communications addressed to the "LODI MANUFACTURING COMPANY, 74 Cortlandt street, New-York," will meet with prompt attention. Jan. 1, 1852—6t.

A Book for Wives and Daughters.

THE LADIES GUIDE; OR SKILLFUL HOUSEWIFE, (*price twenty-five cents.*) being a Complete Guide to Domestic Cookery, Taste, Comfort and *Economy;* embracing *six hundred and fifty-nine* Receipts, pertaining to household duties, Gardening, Flowers, Birds, Plants, &c. Published by C. M. SAXTON,

Jan. 1—3t. 152 Fulton Street, New-York.

New and Important Insurance.

Northern N. York Live Stock Ins. Co., Plattsburgh N. Y.

INCORPORATED by the Legislature of the State of New-York, July, 1851. Horses, Cattle, and all kinds of Live Stock insured against Death, by the combined risks of Fire, Water, Accidents, Diseases, &c CAPITAL, $50,000.

Directors.

James Farr, Washington county.	Amasa C. Moore, Clinton county.
Joseph Potter, do	John Boynton, do
Olif Abell, do	Zephaniah C Platt, do
Pelatiah Richards, Warren co.	Cornelius Halsey, do
Walter Geer, do	James Averill, do
Wm. E. Calkins, Essex co.	Jacob H. Holt, do
Albert Andrus, Franklin co.	Peter S. Palmer, do
John Horton, St. Lawrence co.	George Moore, do
Thomas Conkey, do	Henry G. Hewitt, do

JAMES FARR, President. G. MOORE, Plattsburgh, Sec'y

A. C. MOORE, Vice-Pest. Z. C. PLATT, do Treas.

I. C. MIX, Port Ann, Gen. Agent.

October 13, 1851.

This company are now organized and ready to receive applications for insurance. It is confidently believed that the owners of valuable animals will avail themselves of the advantages offered by this mode of protection. If fire, life and marine insurances are proper and expedient, so is live stock insurance: the reasons for insurance are equally applicable to all.

The company have adopted such rates as, they believe, will furnish the means of paying ordinary losses, without resort to an assessment. But to guard against extraordinary losses, which may arise from contagious diseases or epidemics, it becomes necessary to require premium notes.

To the Owners of Horses and Live stock.

Office of the Northern New-York Live Stock Ins. Co.,
Plattsburgh, August 16, 1851.

The Directors of the above Company, incorporated by the Legislature of the State of New-York, at its extra session in July, 1851, respectfully request your attention to the following facts bearing on this subject.

1st. Value of this class of property. By the census of 1845, there were at that time in the State of New-York, as follows:

Horses,	
One-half a million,	505,155
Neat Cattle,	
Over two millions,	2,072,330
Cows milked,	
Nearly a million,	999,490
Sheep,	
Over six millions,	6,443,855
Hogs,	
Over one million and a half,	1,584,344

Without making any estimate of the value of this property, it is apparent that it is immense; extending to every inhabited spot, and essential to the health and comfort, almost to the existence of the inhabitants

2d. These animals are subject to disease and accident. It is asserted by a Vermont Company, engaged in the Live Stock Insurance, as a fact which cannot be disputed, that the aggregate loss upon this species of property throughout New-England, is *greater* than the losses by fire; at all events, it is a fact undoubted that the annual loss is very great, and the owner is left unprovided with any means of security against the hazard incident to this description of property.

3d. The knowledge of this risk is one of the leading hindrances to improvement in the breed of that useful and noble animal, the horse. Men of capital are slow to invest large sums in a valuable animal, whose loss they must every day risk, to the amount often from five hundred to a thousand dollars, in every valuable breeding horse.

With the ample security to be afforded by sound Insurance Companies, the investment of capital in horses and live stock may be made as safe and safer than the carrying of freight on the seas and inland waters. Marine Insurance has rendered this last business steady and profitable; while without it, it would want the confidence which that branch of business now commands. The absence of this Insurance in the case of live stock is universally felt, while the owner of real estate can command half or two-thirds of its value when needed for an emergency.

While the owner of the ship, "the play thing of the wind and waves," may obtain any reasonable advance; the owner of equally valuable property, invested in horses and cattle, cannot obtain a dollar. The only exception being fat cattle destined for market. In vain does the owner of the horse appeal to his industry or usefulness. The answer is, that his property is liable to disease and accident, and that as security it is utterly worthless.

4th. The Insurance principle comes in, and does for him what Life Insurance has done for the young beginner in trade, taking away the risk arising from the uncertainty of life.

It will do for him what Fire Insurance has done for the owner of personal property; placing him nearly on a level with the owner of real estate.

Your aid is respectfully solicited in behalf of this company, the first chartered in this state for this object. The Directors intend it shall be prudently conducted, and one which shall deserve the confidence of the public.

Terms of insurance will be furnished by the agents of the company

George Moore, Secretary. JAMES FARR, President.

Dec. 1—6t.

Agricultural Books

OF all kinds, for sale at the Cultivator Office, 407 Broadway, Albany.

Contents of this Number.

The Sub-divisions of Farms,..... 65
Prairie Farming—Breaking the Sod, by W. G. EDMUNDSON,... 67
Superficial Farming—Successful Culture of Melons—Importation of Hereford Cattle, &c. 68
Topping Corn—Improvement of Varieties, &c.,..... 69
Growth of the United States—What Foreigners think of us, by Prof. NORTON,..... 70
February a hard month for Stock—Hardiness of Grafted Apple Trees—Insects on Apple and Cherry Grafts,..... 72
Page's Portable Saw-Mill, by Dr. G. B. SMITH—Washing, Drying and Ironing Clothes, by HOOSIER,..... 73
A Country School House,..... 75
Notices of New Publications,..... 76
Horticultural Notices,..... 77
The Cultivator—Improvement of the Mind, by S. EDWARDS TODD,..... 78
Live Stock in Texas—Fruit Trees from Cuttings—The way Weeds increase..... 79
Heavy and Light Wooled Sheep, by W. M'C.,..... 80
Stock for the Dairy—Indellible Ink for Marking Labels for Trees, Plants, &c.,..... 81
A Farm in Western New-York, by WM H. SOTHAM,..... 82
Plows should Pulverise the Soil—Cultivation by Steam—Farmer's Families—To Destroy Calamus or Sweet Flag..... 83
Lightning Rods, Protection of Barns, &c., by Dr. G. B. SMITH, 84
Dairy Business on the Western Prairies, by W. G. EDMUNDSON, 85
The Canadian or Wild Goose..... 86
List of Varieties of Apples—Education Necessary for the Farmer—Wheat and Chess,..... 87
Annual meeting N. Y. State Ag. Society..... 88
Mr. Vail's Imported Durham Cattle..... 89
Notes for the Month—To Correspondents, &c.,..... 90

ILLUSTRATIONS.

Diagrams of Farms,..... 65, 66
Washing Machine,..... 74
A Country School-House, ... 75
Fruit Trees from Cuttings,..... 79
South Down Sheep,..... 80
Chinese Pigs,..... 81
The Canadian or Wild Goose,..... 86
Mr. Vail's Imported Short-horn Heifer,..... 87

Kinderhook Nursery and Garden,

At Kinderhook, Columbia co, New-York.

THE proprietor has on hand his usual large supply of Fruit and Ornamental Trees, Evergreens, Flowering Shrubs, Gooseberry and Currant bushes, Grapevines, Hedge plants, Raspberries, Strawberries, &c.

The Trees are of large size, thrifty growth, and well rooted, and can furnish nearly all the new varieties ordered, and will sell at the lowest market prices.

Ornamental trees being grown extensively, can be furnished by the hundred at very reasonable rates. European Linden, Mountain Ash, Scotch Elm, English Elms, English Sycamore, Weeping Willow, with a good collection of Roses, Green-house plants, &c., all which can be supplied in quantities to suit purchasers. Catalogues will be forwarded to all applicants. H. SNYDER,

Feb. 1—2t. Nurseryman, Kinderhook.

French Quince Cuttings.

I CAN furnish from ten to fifteen thousand thrifty cuttings from imported quinces, at $2 per 1,000, at Walworth Nurseries.

Walworth, N. Y., Feb. 1, 1852—2t.* T. G. YEOMANS.

For Sale,

A THOROUGH bred Devon Bull. He has been exhibited at "*three*" agricultural fairs, and has taken the first premium at each. He is a very superior animal, and will be three years old next month. THOMAS HANCOCK,

Feb. 1, 1852—3t. Ashton Nurseries, Burlington, New-Jersey.

Fruit and Ornamental Trees.

ELLWANGER & BARRY beg to remind those who intend to plant next spring, that their stock of

Standard Fruit Trees for orchards,

Dwarf Fruit Trees for gardens,

Ornamental Trees for Streets, Parks, Gardens and Pleasure Grounds; *Roses*, &c., &c., is very large, and offers great inducements to those who want first rate articles.

The *Descriptive Catalogue*, sent gratis to all who apply post-paid, and remit stamps for postage, which must now be prepaid. Five cents 500 miles or less, ten cents over 500 and below 1000.

☞ See other advertisement.

Feb. 1, 1852—2t. Mount Hope Nurseries, Rochester, N. Y.

Fowls and Eggs.

VERY handsome specimens of the Albany Dorking, Black Poland, and Silver Spangled Poland are for sale by the subscriber. Also, eggs of the above and the following varieties:—

Shanghae, Perly stock.
Santa Ana, game.
Golden Polish.
Java Bantams.

The above may be relied upon as genuine. E. E. PLATT.

Albany, Feb. 1, 1852—2t

NEW AND VALUABLE PLANTS,

For the Nursery, Garden, and Pleasure Grounds.

B. M. WATSON, Old Colony Nurseries, Plymouth, Mass., offers for sale a very complete assortment of Trees and Plants of every description, of which a priced Catalouge will be sent post paid, to all applicants. See also advertisement in detail, in the February, March and April numbers of the Horticulturist. Feb. 1, 1852—1t.

Warren's Improved Portable Horse Powers and Threshers.

THE undersigned continue to manufacture and sell these celebrated machines, and experience has proved that the FOUR HORSE POWER MACHINES have given universal satisfaction without a single exception.

The four horse power may be used with one to four horses—and experience up to this time has proved that there are no Horse Powers and Threshers so cheap to the purchaser as these.

Price of Four Horse Power alone,.....	$75 00
" of " " Spike Thresher,.....	30 00
" of 40 foot Band 3½ inches wide,.....	5 00
Terms Cash.	$110 00

P. S.—Orders for any kind of Agricultural Implements and other merchandize, will also be promptly attended to.

EDW. PLANT, JAS. PLANT, } PLANT, BROTHERS, Com. Merchants,

Feb. 1—2t. 146 William st., New-York.

Choice Seedling Potatoes,

AS USUAL, for planting; also their seed from the balls.

Buffalo, Feb. 1, 1852.—1t. N. S. SMITH.

CHOICE FOWLS.

SEVERAL varieties bred from the best specimens of the late imported Stock from the Eastern Market. Cochin China, Imperial Chinese, Brahma pootu, China Dorking, and others.

Buffalo, Feb. 1, 1852.—1t. N. S. SMITH.

Field and Garden Seeds.

WE have recently imported, from England, France, and Germany, and have grown in the United States expressly for us, a fine assortment of the best and most approved kinds of FIELD and GARDEN SEEDS.

Agricultural and Horticultural Implements, a large assortment of the various kinds suitable for North and South America.

A. B. ALLEN & CO.,

Jan. 1, 1852—tf. 189 and 191 Water-st., New-York.

N. YORK AGRICULTURAL WAREHOUSE.

A. B. ALLEN & CO.,

189 *and* 191 *Water Street, New-York.*

PLOWS of a great variety of patterns and different sizes, calculated for sward and stubble land, wet meadows, and recently drained swamps where roots abound. Among these plows, also are the deep-breaking-up, flat-furrow, lap-furrow, self-sharpening, side-hill, double-mould-board, corn, cotton, cane, rice, and subsoil with single or double wings.

HARROWS, triangular, square, Geddes, and Scotch.

ROLLERS, with iron sections one foot long, and of different diameters. These can be arranged on an iron shaft for any required width.

CULTIVATORS of upwards of twenty different kinds, steel tooth and cast iron.

SEED SOWERS of six different kinds and prices.

HORSE POWERS, endless chain and circular, of wood and cast iron.

THRESHERS, with or without Separators.

GRAIN MILLS of cast iron, and burr stone, to work either by hand, horse or water power.

CORN SHELLERS, single and double, large and small cylindrical to work by hand or otherwise.

STRAW CUTTERS, spiral, straight, or circular knives.

VEGETABLE CUTTERS for turneps and other roots.

Together with a great variety of all other Agricultural and Horticultural Implements kept in the United States, such as Hoes, Shovels, Spades, Rakes, Manure and Hay Forks, Grain Cradles, Scythes, Snaths, &c. &c.

CASTINGS of all kinds for Plows, Cotton Gins, and Sugar Rollers.

WAGONS and *CARTS*, for horse, ox, or hand.

STEAM ENGINES for farm and other purposes.

Our implements occupy three large stores, and we believe they make up the largest and most complete assortment in America. In addition, we have a machine shop employing upwards of one hundred men, where any articles in our line can be made to order.

A. B. ALLEN & CO.,

Jan. 1, 1852—tf. 189 and 191 Water st., New-York.

THE CULTIVATOR

Is published on the first of each month, at Albany, N. Y., by

LUTHER TUCKER, PROPRIETOR.

$1 per Ann.—7 Copies for $5—15 for $10.

☞ All subscriptions to commence with the volume, (the Jan. No.,) and to be PAID IN ADVANCE.

ADVERTISEMENTS.—The charge for Advertisements is $1 for 12 lines, for each insertion. No variation made from these terms.